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LOGINID:SSPTAKAB1626

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

| | | | |
|------|----|--------|--|
| NEWS | 1 | | Web Page for STN Seminar Schedule - N. America |
| NEWS | 2 | AUG 06 | CAS REGISTRY enhanced with new experimental property tags |
| NEWS | 3 | AUG 06 | FSTA enhanced with new thesaurus edition |
| NEWS | 4 | AUG 13 | CA/CAPplus enhanced with additional kind codes for granted patents |
| NEWS | 5 | AUG 20 | CA/CAPplus enhanced with CAS indexing in pre-1907 records |
| NEWS | 6 | AUG 27 | Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB |
| NEWS | 7 | AUG 27 | USPATOLD now available on STN |
| NEWS | 8 | AUG 28 | CAS REGISTRY enhanced with additional experimental spectral property data |
| NEWS | 9 | SEP 07 | STN AnaVist, Version 2.0, now available with Derwent World Patents Index |
| NEWS | 10 | SEP 13 | FORIS renamed to SOFIS |
| NEWS | 11 | SEP 13 | INPADOCDB enhanced with monthly SDI frequency |
| NEWS | 12 | SEP 17 | CA/CAPplus enhanced with printed CA page images from 1967-1998 |
| NEWS | 13 | SEP 17 | CAPplus coverage extended to include traditional medicine patents |
| NEWS | 14 | SEP 24 | EMBASE, EMBAL, and LEMBASE reloaded with enhancements |
| NEWS | 15 | OCT 02 | CA/CAPplus enhanced with pre-1907 records from Chemisches Zentralblatt |
| NEWS | 16 | OCT 19 | BEILSTEIN updated with new compounds |
| NEWS | 17 | NOV 15 | Derwent Indian patent publication number format enhanced |
| NEWS | 18 | NOV 19 | WPIX enhanced with XML display format |
| NEWS | 19 | NOV 30 | ICSD reloaded with enhancements |
| NEWS | 20 | DEC 04 | LINPADOCDB now available on STN |
| NEWS | 21 | DEC 14 | BEILSTEIN pricing structure to change |
| NEWS | 22 | DEC 17 | USPATOLD added to additional database clusters |
| NEWS | 23 | DEC 17 | IMSDRUGCONF removed from database clusters and STN |
| NEWS | 24 | DEC 17 | DGENE now includes more than 10 million sequences |
| NEWS | 25 | DEC 17 | TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment |
| NEWS | 26 | DEC 17 | MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary |
| NEWS | 27 | DEC 17 | CA/CAPplus enhanced with new custom IPC display formats |
| NEWS | 28 | DEC 17 | STN Viewer enhanced with full-text patent content from USPATOLD |
| NEWS | 29 | JAN 02 | STN pricing information for 2008 now available |
| NEWS | 30 | JAN 16 | CAS patent coverage enhanced to include exemplified prophetic substances |
| NEWS | 31 | JAN 28 | USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats |
| NEWS | 32 | JAN 28 | MARPAT searching enhanced |

NEWS 33 JAN 28 USGENE now provides USPTO sequence data within 3 days
of publication
NEWS 34 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 35 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements
NEWS 36 FEB 08 STN Express, Version 8.3, now available

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 24 JANUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 16:20:03 ON 12 FEB 2008

=> file reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|---------------------|------------------|
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'REGISTRY' ENTERED AT 16:20:10 ON 12 FEB 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 11 FEB 2008 HIGHEST RN 1002789-56-1
DICTIONARY FILE UPDATES: 11 FEB 2008 HIGHEST RN 1002789-56-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

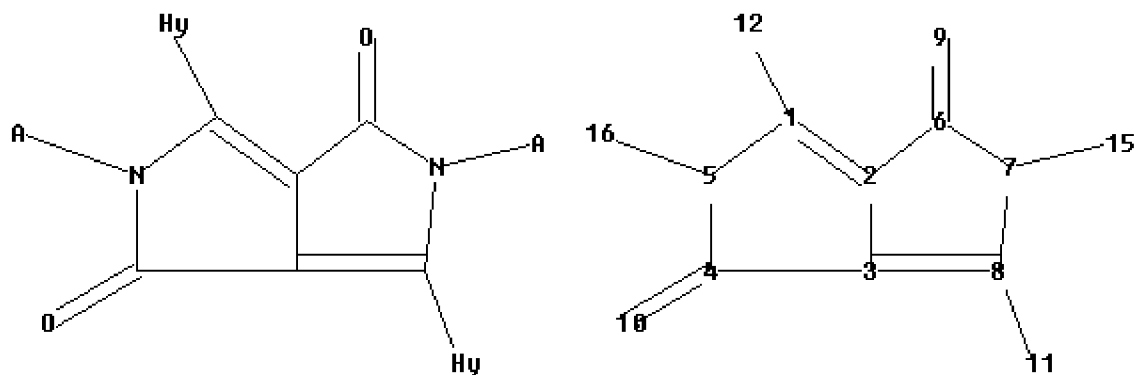
Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10551976.str



```

chain nodes :
9 10 11 12 15 16
ring nodes :
1 2 3 4 5 6 7 8
chain bonds :
1-12 4-10 5-16 6-9 7-15 8-11
ring bonds :
1-2 1-5 2-3 2-6 3-4 3-8 4-5 6-7 7-8
exact/norm bonds :
1-2 1-5 1-12 2-3 2-6 3-4 3-8 4-5 4-10 5-16 6-7 6-9 7-8 7-15 8-11
isolated ring systems :
containing 1 :

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:CLASS
11:Atom 12:Atom 15:CLASS 16:CLASS
Element Count :
Node 11: Limited
    N,N1-2
    C,C4-5

Node 12: Limited
    N,N1-2
    C,C4-5

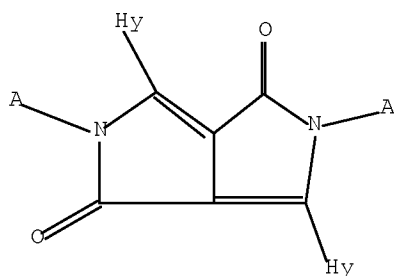
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L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> caslink

CASLINK IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> file caslink

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.46

0.67

FILE 'CAPLUS' ENTERED AT 16:20:45 ON 12 FEB 2008

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FILE 'MARPAT' ENTERED AT 16:20:45 ON 12 FEB 2008

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FILE 'REGISTRY' ENTERED AT 16:20:45 ON 12 FEB 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2008 American Chemical Society (ACS)

CLUSTER 'CASLINK' ENTERED

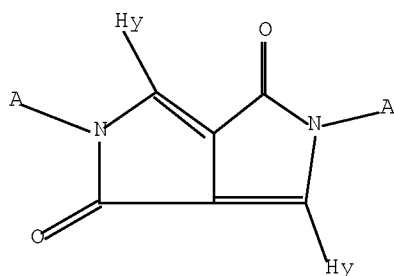
Predefined command sequences will be executed in

REGISTRY, MARPAT, and CAPLUS.

=> d L1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1 SSS SAM

S L1 SSS SAM FILE=REGISTRY

SAMPLE SEARCH INITIATED 16:21:25 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 595 TO ITERATE

100.0% PROCESSED 595 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 10437 TO 13363

PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

1 FILES SEARCHED...

S L2 SSS SAM FILE=MARPAT

SAMPLE SEARCH INITIATED 16:21:26 FILE 'MARPAT'

SAMPLE SCREEN SEARCH COMPLETED - 520 TO ITERATE

100.0% PROCESSED 520 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 9052 TO 11748

PROJECTED ANSWERS: 2 TO 125

L3 2 SEA SSS SAM L1

1 FILES SEARCHED...

=> D scan L3

L3 2 ANSWERS MARPAT COPYRIGHT 2008 ACS on STN

IC ICM C07D487-04

NCL 548453000

CC 42-6 (Coatings, Inks, and Related Products)

Section cross-reference(s): 28

TI Viscosity reducing 1,4-diketo-3,6-diarylpyrrolo[3,4-c]pyrrole derivatives

ST diaryldiketopyrrolopyrrole quinacridone viscosity reducing agent; coating pigment viscosity reducing agent

IT Paints
Pigments, nonbiological
(diaryldiketopyrrolopyrrole derivative viscosity reducing agents for pigment dispersions for paints)

IT Automobiles
(finish; diaryldiketopyrrolopyrrole derivative viscosity reducing agents for pigment dispersions for paints)

IT Viscosity
(lowering agents; diaryldiketopyrrolopyrrole derivative viscosity reducing agents for pigment dispersions for paints)

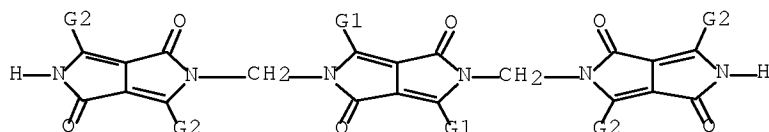
IT 180640-94-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(diaryldiketopyrrolopyrrole derivative viscosity reducing agents for pigment dispersions for paints)

IT 200356-69-0DP, sulfonated 200356-69-0P 200702-73-4P 200702-74-5P 200702-88-1P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(diaryldiketopyrrolopyrrole derivative viscosity reducing agents for pigment dispersions for paints)

IT 180640-82-8
RL: MOA (Modifier or additive use); USES (Uses)
(diaryldiketopyrrolopyrrole derivative viscosity reducing agents for pigment dispersions for paints)

IT 30525-89-4, Paraformaldehyde 54660-00-3, 1,4-Diketo-3,6-diphenylpyrrolo[3,4-c]pyrrole
RL: RCT (Reactant); RACT (Reactant or reagent)
(diaryldiketopyrrolopyrrole derivative viscosity reducing agents for pigment dispersions for paints)

MSTR 1



G1 = pyridyl

Patent location:

claim 1

Note:

substitution is restricted

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 2 ANSWERS MARPAT COPYRIGHT 2008 ACS on STN

IC ICM C07D487-04

ICS C09K009-02

ICA C07D213-20; C07D221-06; C07D215-04; C07D215-10

ICI C07D487-04, C07D209-00, C07D209-32

CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))

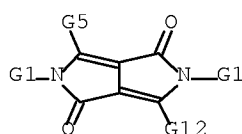
Section cross-reference(s): 41, 74, 76

TI Preparation of electrochromic diketopyrroles for electrochromic display devices

ST diketopyrrole prepn electrochromic material; display device electrochromic diketopyrrole

IT Electrochromic materials
(diketopyrroles)
IT Optical imaging devices
(electrochromic, diketopyrrole-containing media for)
IT Dyes
(electrochromic, diketopyrroles)
IT 164790-12-9P 164790-14-1P 164790-16-3P 164790-18-5P 164790-20-9P
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic
preparation); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(preparation of electrochromic diketopyrroles for electrochromic display
devices)
IT 88949-27-3 88949-28-4 88949-39-7 164790-21-0 164790-22-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of electrochromic diketopyrroles for electrochromic display
devices from)
IT 7681-53-0, Sodium hypophosphite 13943-58-3, Potassium ferrocyanide
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or
reagent); USES (Uses)
(preparation of electrochromic diketopyrroles for electrochromic display
devices media containing)

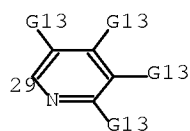
MSTR 1



G1 = alkylcarbonyl <containing 1-14 C>
G5 = 15

$1G^6$ ● G16

G6 = 29



G12 = 22

$2G^6$ ● G16

Patent location: claim 1
Note: substitution is restricted

ALL ANSWERS HAVE BEEN SCANNED

=> d his

(FILE 'HOME' ENTERED AT 16:20:03 ON 12 FEB 2008)

FILE 'REGISTRY' ENTERED AT 16:20:10 ON 12 FEB 2008

L1 STRUCTURE UPLOADED

FILE 'CAPLUS, MARPAT, REGISTRY' ENTERED AT 16:20:45 ON 12 FEB 2008

L2 1 S L1 SSS SAM FILE=REGISTRY

L3 2 S L2 SSS SAM FILE=MARPAT

=> S L1 SSS Ful

S L1 SSS FUL FILE=REGISTRY

FULL SEARCH INITIATED 16:22:39 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 11367 TO ITERATE

100.0% PROCESSED 11367 ITERATIONS

18 ANSWERS

SEARCH TIME: 00.00.01

L4 18 SEA SSS FUL L1

1 FILES SEARCHED...

S L4 SSS FUL FILE=MARPAT

FULL SEARCH INITIATED 16:22:40 FILE 'MARPAT'

FULL SCREEN SEARCH COMPLETED - 10490 TO ITERATE

100.0% PROCESSED 10490 ITERATIONS

39 ANSWERS

SEARCH TIME: 00.00.08

L5 39 SEA SSS FUL L1

1 FILES SEARCHED...

S L4 FILE=CAPLUS

L6 6 FILE CAPLUS

1 FILES SEARCHED...

SET DUPORDER FILE

SET COMMAND COMPLETED

DUP REM L5 L6

PROCESSING COMPLETED FOR L5

PROCESSING COMPLETED FOR L6

L7 40 DUP REM L5 L6 (5 DUPLICATES REMOVED)

ANSWERS '1-38' FROM FILE MARPAT

ANSWERS '39-40' FROM FILE CAPLUS

=> D SCAN L6

L6 6 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN

IC ICM C07D471-04

ICS G11C013-04; G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s): 41

TI Optical memory devices containing color changeable dyes, and dyes therefor
ST fluorescent dye optical recording; memory device optical dye
IT Dyes

(fluorescent, preparation of, for optical memory devices)

IT Memory devices

Recording materials

(optical, fluorescent dyes for)

IT 128-69-8P 579-74-8P 54177-02-5P 128318-44-5P, 2-
Methoxybenzoylsuccinic acid dimethyl ester 128318-45-6P 128318-63-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation and reaction of, fluorescent dye for optical memory device
from)

IT 41572-87-6P 70485-42-6P 106822-31-5P 110590-74-4P 110590-75-5P
110590-76-6P 110590-77-7P 110590-78-8P 110590-79-9P 110590-80-2P
110590-81-3P 110590-82-4P 110590-83-5P 110590-84-6P 110613-98-4P
118560-90-0P 118560-91-1P 118560-92-2P 118560-93-3P 118560-94-4P
118560-95-5P 119273-54-0P 119273-55-1P 128318-46-7P 128318-47-8P
128318-48-9P 128318-49-0P 128318-50-3P 128318-51-4P
~~128318-52-5P~~ 128318-53-6P 128318-54-7P 128318-55-8P
128318-56-9P 128318-57-0P 128318-58-1P 128318-59-2P 128318-60-5P
128318-61-6P 128318-62-7P

RL: PREP (Preparation)

(preparation of, as color changeable dye in optical memory device)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> D L7 ibib abs fqhit

L7 ANSWER 1 OF 40 MARPAT COPYRIGHT 2008 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 141:351424 MARPAT Full-text

TITLE: Fluorescent diketopyrrolopyrroles

INVENTOR(S): Yamamoto, Hiroshi; Dan, Norihisa

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 83 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

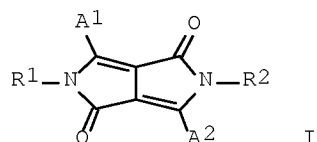
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| WO 2004090046 | A1 | 20041021 | WO 2004-EP50403 | 20040401 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1611207 | A1 | 20060104 | EP 2004-725051 | 20040401 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR | | | |

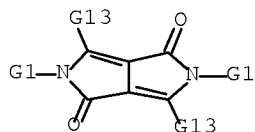
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|------------------------|----|----------|------------------|----------|
| CN 1771298 | A | 20060510 | CN 2004-80009420 | 20040401 |
| JP 2006524281 | T | 20061026 | JP 2006-505506 | 20040401 |
| US 2007010672 | A1 | 20070111 | US 2005-551976 | 20051005 |
| MX 2005PA10866 | A | 20060605 | MX 2005-PA10866 | 20051010 |
| IN 2005CN02934 | A | 20070608 | IN 2005-CN2934 | 20051109 |
| PRIORITY APPLN. INFO.: | | | EP 2003-100972 | 20030410 |
| | | | WO 2004-EP50403 | 20040401 |

GI



AB Fluorescent diketopyrrolopyrroles I [R1, R2 = (halo-substituted) C1-25 alkyl, (C1-4 alkyl-substituted) allyl, cycloalkyl, (substituted) phenyl-cycloalkyl condensed group, alkenyl, cycloalkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, ketone or aldehyde group, ester group, carbamoyl, silyl group, siloxanyl, (substituted) aryl, (substituted) heteroaryl, or CR3R4(CH2)mA3; m = 0-4; R3, R4 = H, C2-4 alkyl, or (substituted) Ph; A1, A1 = 5- or 6-membered heterocyclic ring containing 1-3 heteroatoms selected from N,O, and S] are prepared for use as guest and host chromophores in electroluminescent compns., with the absorption spectrum of the guest chromophore overlapping the fluorescent emission spectrum of the host chromophore and the photoluminescence emission peak of the host chromophore being 500-720 nm. A typical I was manufactured by reaction of 27.7 g 5-bromo-2-cyanopyridine 20 h at 100-110° with 16.2 g diisopropyl succinate in tert-amyl alc., and reaction of 2 g intermediate 21 h with 2.4 g BuI in NMP in the presence of tert.-BuOK.

MSTR 1



G1 = CH2CH=CH2

G13 = pyridyl (opt. substd.)

Patent location: claim 1

Note: substitution is restricted

Note: also incorporates claim 11

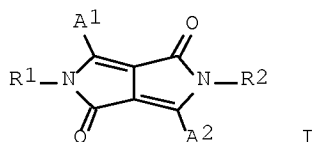
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d L7 ibib abs fqhit 1-40

L7 ANSWER 1 OF 40 MARPAT COPYRIGHT 2008 ACS on STN DUPLICATE 1
 ACCESSION NUMBER: 141:351424 MARPAT Full-text
 TITLE: Fluorescent diketopyrrolopyrroles
 INVENTOR(S): Yamamoto, Hiroshi; Dan, Norihisa
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 83 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|------------------|----------|
| WO 2004090046 | A1 | 20041021 | WO 2004-EP50403 | 20040401 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1611207 | A1 | 20060104 | EP 2004-725051 | 20040401 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR | | | |
| CN 1771298 | A | 20060510 | CN 2004-80009420 | 20040401 |
| JP 2006524281 | T | 20061026 | JP 2006-505506 | 20040401 |
| US 2007010672 | A1 | 20070111 | US 2005-551976 | 20051005 |
| MX 2005PA10866 | A | 20060605 | MX 2005-PA10866 | 20051010 |
| IN 2005CN02934 | A | 20070608 | IN 2005-CN2934 | 20051109 |
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| | | | WO 2004-EP50403 | 20040401 |

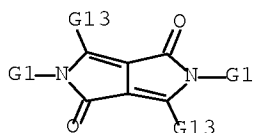
GI



AB Fluorescent diketopyrrolopyrroles I [R1, R2 = (halo-substituted) C1-25 alkyl, (C1-4 alkyl-substituted) allyl, cycloalkyl, (substituted) phenyl-cycloalkyl condensed group, alkenyl, cycloalkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, ketone or aldehyde group, ester group, carbamoyl, silyl group, siloxanyl, (substituted) aryl, (substituted) heteroaryl, or CR3R4(CH2)mA3; m = 0-4; R3, R4 = H, C2-4 alkyl, or (substituted) Ph; A1, A1 = 5- or 6-membered heterocyclic ring containing 1-3 heteroatoms selected from N,O, and S] are prepared for use as guest and host chromophores in electroluminescent compns.,

with the absorption spectrum of the guest chromophore overlapping the fluorescent emission spectrum of the host chromophore and the photoluminescence emission peak of the host chromophore being 500-720 nm. A typical I was manufactured by reaction of 27.7 g 5-bromo-2-cyanopyridine 20 h at 100-110° with 16.2 g diisopropyl succinate in tert-amyl alc., and reaction of 2 g intermediate 21 h with 2.4 g BuI in NMP in the presence of tert.-BuOK.

MSTR 1



G1 = CH₂CH=CH₂

G13 = pyridyl (opt. substd.)

Patent location: claim 1

Note: substitution is restricted

Note: also incorporates claim 11

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 40 MARPAT COPYRIGHT 2008 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 128:181675 MARPAT Full-text

Correction of: 128:76655

TITLE: Diketopyrrolopyrrole derivatives and manufacture thereof, manufacture of coating materials containing the same, and reducing pigmented organic polymer solutions viscosity by using the same

INVENTOR(S): Hendi, Shivakumar Basalingappa

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

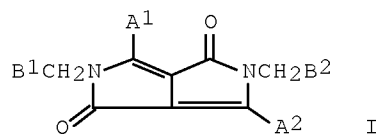
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

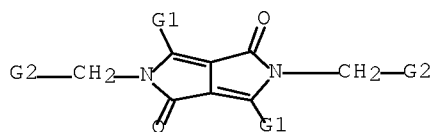
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------------------|------|----------|-----------------|----------|
| EP 811625 | A2 | 19971210 | EP 1997-810324 | 19970527 |
| EP 811625 | A3 | 19980408 | | |
| EP 811625 | B1 | 20020417 | | |
| R: CH, DE, ES, FR, GB, IT, LI, NL | | | | |
| CA 2206756 | A1 | 19971205 | CA 1997-2206756 | 19970603 |
| CN 1171402 | A | 19980128 | CN 1997-112961 | 19970604 |
| CN 1067395 | B | 20010620 | | |
| JP 10081687 | A | 19980331 | JP 1997-147565 | 19970605 |
| BR 9703467 | A | 19981006 | BR 1997-3467 | 19970605 |
| PRIORITY APPLN. INFO.: | | | US 1996-19138P | 19960605 |
| | | | US 1996-27469P | 19960926 |
| | | | US 1996-27470P | 19960926 |

GI



AB The title compds. are I [A1, A2 = aryl; B1, B2 = organic group] prepared from I (B1, B2 = OH) with or without isolation. 1,4-Diketo-3,6-diphenylpyrrolo[3,4-c]pyrrole, quinacridone, and paraformaldehyde in concentrated sulfuric acid gave I (A1 = A2 = Ph; Q = quinacridinyl).

MSTR 1



G1 = pyridyl

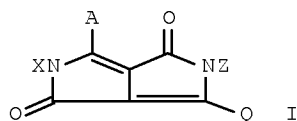
Patent location: claim 1

L7 ANSWER 3 OF 40 MARPAT COPYRIGHT 2008 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 123:146701 MARPAT Full-text
TITLE: 1,4-diketopyrrolo[3,4-c]pyrroles, their preparation and their use
INVENTOR(S): Zambounis, John; Hao, Zhimin; Iqbal, Abul
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| EP 648770 | A2 | 19950419 | EP 1994-810580 | 19941004 |
| EP 648770 | A3 | 19950531 | | |
| EP 648770 | B1 | 20000517 | | |
| R: BE, CH, DE, FR, GB, IT, LI, NL | | | | |
| US 5484943 | A | 19960116 | US 1994-319406 | 19941006 |
| CA 2117865 | A1 | 19950414 | CA 1994-2117865 | 19941011 |
| JP 07188234 | A | 19950725 | JP 1994-246632 | 19941013 |
| JP 3596915 | B2 | 20041202 | | |
| EP 690057 | A1 | 19960103 | EP 1995-810412 | 19950620 |

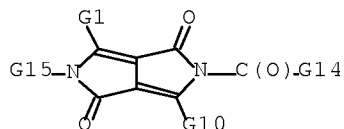
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| EP 690057 | B1 | 19990908 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| EP 690058 | A1 | 19960103 | EP 1995-810413 | 19950620 |
| EP 690058 | B1 | 19990908 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| EP 690059 | A1 | 19960103 | EP 1995-810414 | 19950620 |
| EP 690059 | B1 | 19990908 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| US 5591865 | A | 19970107 | US 1995-493853 | 19950622 |
| US 5646299 | A | 19970708 | US 1995-493776 | 19950622 |
| US 5650520 | A | 19970722 | US 1995-493516 | 19950622 |
| CA 2152744 | A1 | 19951230 | CA 1995-2152744 | 19950627 |
| CA 2152745 | A1 | 19951230 | CA 1995-2152745 | 19950627 |
| CA 2152748 | A1 | 19951230 | CA 1995-2152748 | 19950627 |
| JP 08020731 | A | 19960123 | JP 1995-163153 | 19950629 |
| JP 3637105 | B2 | 20050413 | | |
| JP 08027391 | A | 19960130 | JP 1995-163151 | 19950629 |
| JP 3645314 | B2 | 20050511 | | |
| JP 08048908 | A | 19960220 | JP 1995-163152 | 19950629 |
| JP 3645315 | B2 | 20050511 | | |
| US 5616725 | A | 19970401 | US 1995-541004 | 19951011 |
| PRIORITY APPLN. INFO.: | | | CH 1993-3079 | 19931013 |
| | | | CH 1994-2074 | 19940629 |
| | | | CH 1994-2075 | 19940629 |
| | | | CH 1994-2076 | 19940629 |
| | | | US 1994-319406 | 19941006 |

GI



AB The pyrrolopyrrolediones (I; A, Q = aromatic group; X = H, RO₂C; Z = CO₂R, where R = organic group) are obtained for use as UV-fluorescent pigments. Thus, 1,4-diketo-3,6-diphenylpyrrolo[3,4-c]pyrrole was treated with di-tert-Bu carbonate to give I (A = Q = Ph; X = Z= tert-butoxycarbonyl).

MSTR 1



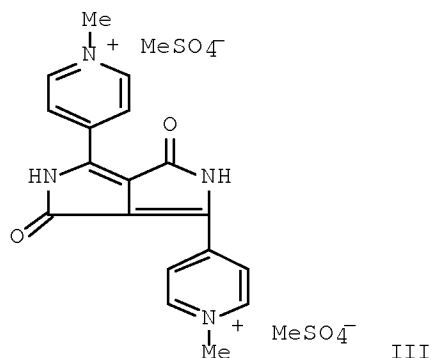
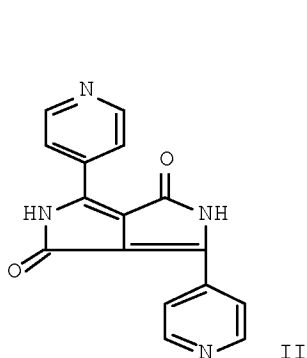
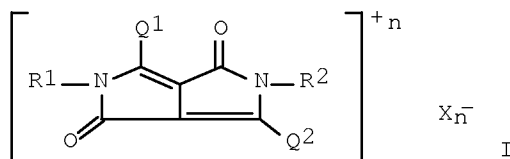
G1 = pyridyl
 G10 = pyridyl
 G15 = 136

Patent location: claim 1
 Note: substitution is restricted

L7 ANSWER 4 OF 40 MARPAT COPYRIGHT 2008 ACS on STN DUPLICATE 4
 ACCESSION NUMBER: 123:83351 MARPAT Full-text
 TITLE: Preparation of electrochromic diketopyrroles for
 electrochromic display devices
 INVENTOR(S): Mizuguchi, Jin; Iqbal, Abul; Giller, Gerald
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Ger. Offen., 10 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| DE 4435211 | A1 | 19950427 | DE 1994-4435211 | 19940930 |
| PRIORITY APPLN. INFO.: | | | CH 1993-2978 | 19931004 |

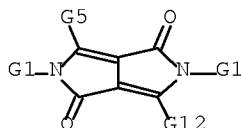
GI



AB The title compds. [I; Q1 = (un)substituted quaternary N-heteroarom.-bound hydrocarbon; Q2 = Q1, (un)substituted aryl; R1, R2 = H, alkyl, haloalkyl, cycloalkyl, (un)substituted Ph, (un)substituted PhCH2, etc.; X = mono-basic acid anion; n = 1, 2], useful in electrochromic display devices, are prepared

Thus, diketopyrrole, II, was reacted with di-Me sulfate, producing an electrochromic salt, III, which, in an electrochromic display device with K₄Fe(CN)₆ and Na hypophosphite at 1.5V for 1 s, demonstrated a contrast ratio (560 nm) of 8 and a useable lifetime without contrast reduction of >1000 cycles.

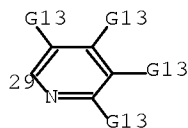
MSTR 1



G1 = alkylcarbonyl <containing 1-14 C>
G5 = 15

¹G₆ ● G16

G6 = 29



G12 = 22

²G₆ ● G16

Patent location: claim 1
Note: substitution is restricted

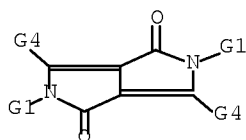
L7 ANSWER 5 OF 40 MARPAT COPYRIGHT 2008 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 113:68456 MARPAT Full-text
TITLE: Optical memory devices containing color changeable dyes, and dyes therefor
INVENTOR(S): Langhals, Heinz; Potrawa, Thomas
PATENT ASSIGNEE(S): Riedel-de Haen A.-G., Germany
SOURCE: PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| WO 9001480 | A1 | 19900222 | WO 1989-EP866 | 19890724 |
| W: JP, US | | | | |
| RW: CH, DE, FR, GB, NL | | | | |
| DE 3901988 | A1 | 19900201 | DE 1989-3901988 | 19890124 |
| DE 3908312 | A1 | 19900927 | DE 1989-3908312 | 19890314 |
| EP 426717 | A1 | 19910515 | EP 1989-908407 | 19890724 |
| EP 426717 | B1 | 19960424 | | |
| R: CH, DE, FR, GB, LI, NL | | | | |
| JP 04500935 | T | 19920220 | JP 1989-507776 | 19890724 |
| US 5354869 | A | 19941011 | US 1991-640367 | 19910129 |
| PRIORITY APPLN. INFO.: | | | DE 1988-3825943 | 19880729 |
| | | | DE 1989-3901988 | 19890124 |
| | | | DE 1989-3908312 | 19890314 |
| | | | DE 1988-3808312 | 19890314 |
| | | | WO 1989-EP866 | 19890724 |

AB The dyes with ≥ 2 different color forms, one of which can be changed to the other by supplying energy, are described which are used as storage media in optical memories. The dyes are solid state fluorescent dyes. Thus, 3,6-bis(2'-methoxyphenyl)-2,5-dihydropyrrolo(3,4-c)pyrrole-1,4-dione was prepared

MSTR 1



G1 = Me

G4 = pyridyl (opt. substd.)

Patent location: claim 1

L7 ANSWER 6 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 144:138473 MARPAT Full-text

TITLE: Fluorescent quinacridones and compositions containing them and their uses

INVENTOR(S): Yamamoto, Hiroshi; Dan, Norihisa; Van der Schaaf, Paul Adriaan

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 55 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| WO 2006003090 | A1 | 20060112 | WO 2005-EP52841 | 20050620 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP 1769048 A1 20070404 EP 2005-753878 20050620

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR

CN 1977029 A 20070606 CN 2005-80021864 20050620

KR 2007043810 A 20070425 KR 2007-702224 20070129

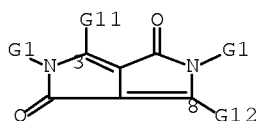
PRIORITY APPLN. INFO.:

EP 2004-103025 20040629

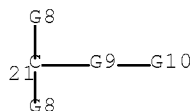
WO 2005-EP52841 20050620

AB Fluorescent quinacridone derivs. and guest-host chromophore compns. comprising them in conjunction with diketopyrrolopyrrole host chromophores are described. The use of the derivs for coloring a high mol. weight organic material, as fluorescent tracers, in color changing media, in solid-state dye lasers, electroluminescent lasers and in electroluminescent devices is also described.

MSTR 2



G1 = 21



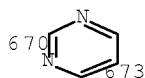
G11 = 762

~~7621-7619~~

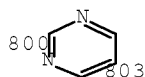
G12 = 764

~~7642-7619~~

G21 = 670-3 673-763



G22 = 800-8 803-765



Patent location: claim 7
Note: also incorporates claim 10
Note: additional ring formation also claimed

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 142:155935 MARPAT [Full-text](#)

TITLE: Processes for the preparation of furopyrroles and diketopyrrolopyrroles (DPPs) via microwave-assisted cyclocondensations of acylpyrrolecarboxylate derivatives, intramolecularly or with nitriles

INVENTOR(S): Riggs, Richard Lewis; Westwood, Nicholas James; Smith, David MacDonald; Morton, Colin

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

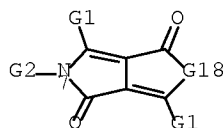
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| WO 2005005430 | A2 | 20050120 | WO 2004-EP51259 | 20040628 |
| WO 2005005430 | A3 | 20050616 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| AU 2004255863 | A1 | 20050120 | AU 2004-255863 | 20040628 |

| | | | | |
|--|----|----------|---------------------|----------|
| EP 1641802 | A2 | 20060405 | EP 2004-766084 | 20040628 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, | | | | |
| IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK | | | | |
| CN 1816553 | A | 20060809 | CN 2004-80019155 | 20040628 |
| US 2007100135 | A1 | 20070503 | US 2005-561393 | 20051219 |
| IN 2006CN00451 | A | 20070817 | IN 2006-CN451 | 20060203 |
| PRIORITY APPLN. INFO.: | | | EP 2003-405507 | 20030707 |
| | | | WO 2004-EP51259 | 20040628 |
| OTHER SOURCE(S): | | | CASREACT 142:155935 | |
| GI | | | | |

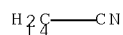
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to a process for the preparation of furopyrroles I, comprising (a) heating a compound II under microwave irradiation, optionally in the presence of an inert solvent [wherein A1 and A2 are C1-C18 alkyl, C2-C18 alkenyl, C2-C18 alkynyl, C5-C8 cycloalkyl, C5-C8 cycloalkenyl, aryl, or heteroaryl; A3 is H, C1-C18 alkyl, cyanomethyl, Ar3, -CR30R31-(CH2)m-Ar3, or -Y-R32, wherein R30 and R31 independently stand for H or C1-C4 alkyl, or Ph which can be substituted up to three times with C1-C4 alkyl; Ar3 is aryl, C5-C8 cycloalkyl, C5-C8 cycloalkenyl, or heteroaryl, which can be substituted one to three times with C1-C8 alkyl, C1-C8 alkoxy, halogen, or Ph, which can be substituted with C1-C8 alkyl or C1-C8 alkoxy 1-3 times; m is 0, 1, 2, 3, or 4; R is C1-C18 alkyl, in particular C1-C4 alkyl, aryl, in particular Ph, or aralkyl, in particular benzyl, which can be substituted one to three times with C1-C8 alkyl, C1-C8 alkoxy, or halogen; Y is C(O), C(O)O, C(O)NH, SO2NH, or SO2; and R32 is C1-C18 alkyl, Ar3, or aralkyl]. Claims also cover diketopyrrolopyrroles (DPPs) III [A4 = H], the preparation of III [A4 = C1-C18 alkyl or Ar3] by reaction of I with primary amines A4-NH2, and an addnl. preparation of III [A4 = H]. I can be obtained in high yield and high purity. The microwave-assisted process, optionally in the presence of an inert solvent, is rapid and economical. Previously, WO03022848 disclosed a process for the preparation of I, comprising heating a compound II in an inert solvent, such as aromatic solvents, like biphenyl, para-, meta- or ortho-terphenyl, dibenzyltoluene, α -methyl- or β -methylnaphthalene, cyclic carbonates like 1,3-dioxolan-2-one, ketones like acetophenone or benzophenone, γ -butyrolactone, and ethylene glycols like Phe-Cellosolve or Bu-Cellosolve, or mixts. thereof, in particular mixts. of di- and triaryl ethers (Dowtherm A). It was discovered that I can be obtained in higher yield by carrying out the above reaction under microwave radiation. The yield of the desired ring closure reaction, e.g., of Et 4-benzoyl-4,5-dihydro-5-oxo-2-phenylpyrrole-3-carboxylate (IV) to give 3,6-diphenylfuro[3,4-c]pyrrole-1,4-dione (V), is, for example, increased from 40% to 86% by microwave assistance. Moreover, the preparation of the latter lactone (a versatile DPP precursor) requires less time (1-10 min) under microwave irradiation, whereas it takes 60 h when conducted without microwave radiation (conventional method). In addition, the solvent can be omitted in the microwave-assisted ring closure, which makes the process even more cost-effective. For instance, 0.296 mmol IV was irradiated with microwave radiation at 2-45 GHz and forward power 300 W without solvent, heating to 250° for 10 min. The crude product V was allowed to cool, triturated, filtered, and washed with MeOH (86% yield). The DPP compound VI was prepared in 52% yield by condensation of the corresponding lactone (i.e., an analog of V) with PhNH2 in the presence of CF3CO2H and DCC at room temperature. Finally, 5-oxo-4,5-dihydrofuran-3-carboxylates react with primary amines to give corresponding pyrrole derivs., which then react with nitriles A2-CN to give compds. III [A4 = H].

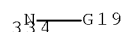
MSTR 1



G1 = pyridyl
G2 = 14



G18 = 334



G19 = alkyl <containing 1-18 C>
Patent location: claim 1
Note: also incorporates claim 2, formula III

L7 ANSWER 8 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 140:129773 MARPAT Full-text
TITLE: Polymerizable diketopyrrolopyrroles, their use in
color filters and polymers prepared from these
compounds
INVENTOR(S): Adam, Jean-marie; De Keyzer, Gerardus
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| WO 2004009710 | A1 | 20040129 | WO 2003-EP7638 | 20030715 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, | | | |

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|---------------|----|----------|----------------|----------|
| AU 2003257464 | A1 | 20040209 | AU 2003-257464 | 20030715 |
| EP 1523528 | A1 | 20050420 | EP 2003-764989 | 20030715 |

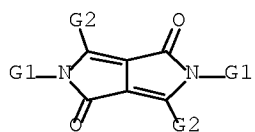
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| | | | | |
|---------------|----|----------|------------------|----------|
| CN 1668709 | A | 20050914 | CN 2003-817203 | 20030715 |
| JP 2005533839 | T | 20051110 | JP 2004-522457 | 20030715 |
| TW 269072 | B | 20061221 | TW 2003-92119862 | 20030721 |
| US 2005255391 | A1 | 20051117 | US 2005-522212 | 20050114 |

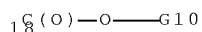
PRIORITY APPLN. INFO.: EP 2002-405640 20020722
 WO 2003-EP7638 20030715

AB The invention relates to the preparation and use of polymerizable diketopyrrolopyrroles in color filters. In contrast to conventional pigments, the polymerizable diketopyrrolopyrroles do not tend to aggregate and, hence, show very good dispersibility. Color filters prepared by using the polymerizable diketopyrrolopyrroles have high transparency and pure hue. In an example, the N atoms of a diketopyrrolopyrrole were treated with 6-chlorohexanol to give the bis(6-hydroxyhexyl) derivative, which was then converted to the red dimethacrylate ester.

MSTR 1



G1 = 18



G2 = pyridyl

Patent location:

Note:

claim 1

oxo formation and heteroatom interruption in G24 and G26 also claimed

REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 141:61865 MARPAT Full-text

TITLE: Diketopyrrolo[3,4-c]pyrroles and their organic electroluminescent devices showing good durability

INVENTOR(S): Yauchi, Hiroyuki; Onikubo, Shunichi

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

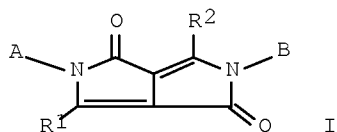
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

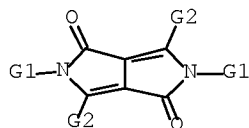
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004175674 | A | 20040624 | JP 2002-340206 | 20021125 |
| PRIORITY APPLN. INFO.: | | | JP 2002-340206 | 20021125 |

GI



AB The pyrroles are I (A, B = electron-withdrawing group; R1, R2 = alkyl, aryl, heterocyclyl). The devices emit light from yellow to red with high intensity.

MSTR 1



G1 = 15

$15^{(O)-G3}$

G2 = 4-pyridyl

Patent location:

claim 1

Note:

additional ring formation also disclosed

L7 ANSWER 10 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 140:411989 MARPAT Full-text

TITLE: Use of latent pigments for hair coloring, composition containing the aforementioned pigments and methods for using them

INVENTOR(S): Lagrange, Alain; Kravtchenko, Sylvain; Greaves, Andrew

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Fr. Demande, 40 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| FR 2847162 | A1 | 20040521 | FR 2002-14535 | 20021120 |
| FR 2847162 | B1 | 20050218 | | |
| EP 1426036 | A1 | 20040609 | EP 2003-292849 | 20031118 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| US 2004226111 | A1 | 20041118 | US 2003-715839 | 20031119 |
| US 7326255 | B2 | 20080205 | | |
| JP 2004168779 | A | 20040617 | JP 2003-390929 | 20031120 |

PRIORITY APPLN. INFO.:

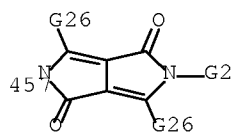
| | |
|-----------------|----------|
| FR 2002-14535 | 20021120 |
| US 2003-502655P | 20030915 |

AB A latent, soluble pigment for dyeing of keratinous fibers is disclosed wherein the soluble pigment in fibers is transformed into insol. pigment in water by chemical, thermal, or photochem. process. The pigment has formula A(B)x wherein A is a chromophoric radical, and B an atom of hydrogen or formula (I, MeCOFmYnF'mZ), with Z representing a hydrosolubilizing cation Z+ or a polyethylene glycol residue, Y is a heteroatom, F and F' are a C1-14 linear or branched alkylene which can contain heteroatoms and can be substituted by one or more hydroxy, amino, or halogen group. Formulation of a hair dye containing a pigment breaking down to dipyrrolidinonylidene at pH>7 and producing indigo color is disclosed.

MSTR 1A

G1—G2

G1 = 457



G2 = 3

G(0)—G5—G4—G3

G26 = pyridyl

Patent location:

Note:

Note:

claim 2

substitution is restricted

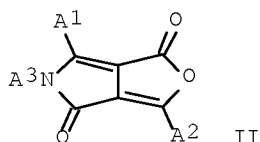
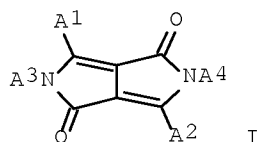
additional heteroatom interruption in G5 and G7
also claimed

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 138:255221 MARPAT Full-text
TITLE: Process for the preparation of diketopyrrolopyrroles (DPPs) from furopyrrolediones and primary amines.
INVENTOR(S): Morton, Colin; Smith, David MacDonald; Ruffieux, Vincent
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

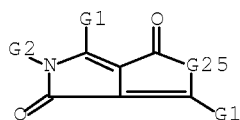
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2003022848 | A2 | 20030320 | WO 2002-EP9792 | 20020903 |
| WO 2003022848 | A3 | 20030918 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2002342633 | A1 | 20030324 | AU 2002-342633 | 20020903 |
| EP 1425282 | A2 | 20040609 | EP 2002-779291 | 20020903 |
| EP 1425282 | B1 | 20070321 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| CN 1553912 | A | 20041208 | CN 2002-817586 | 20020903 |
| CN 1553913 | A | 20041208 | CN 2002-817793 | 20020903 |
| JP 2005508903 | T | 20050407 | JP 2003-526923 | 20020903 |
| AT 321049 | T | 20060415 | AT 2002-774550 | 20020903 |
| AT 357446 | T | 20070415 | AT 2002-779291 | 20020903 |
| US 2004171847 | A1 | 20040902 | US 2004-485840 | 20040204 |
| US 7326793 | B2 | 20080205 | | |
| ZA 2004001106 | A | 20041019 | ZA 2004-1106 | 20040211 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | EP 2001-810875 | 20010911 |
| | | | EP 2001-811249 | 20011220 |
| | | | EP 2002-405223 | 20020322 |
| | | | WO 2002-EP9792 | 20020903 |

GI



AB Title compds. [I; A1, A2 = alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl; A3 = H, alkyl, cyanomethyl, Ar3, CR3OR31(CH2)mAr3, YR32; R30, R31 = H, alkyl, (substituted) Ph; Ar3 = (substituted) aryl, cycloalkyl, cycloalkenyl, heteroaryl; Y = CO, CONH, SO2NH, SO2; R32 = alkyl, Ar3, aralkyl; A4 = alkyl, Ar3], were prepared by treatment of furopyrrrolediones (II; variables as above) with A4NH2 (A4 as above). Thus, II (A1, A2 = Ph; A3 = CH2Ph) was stirred with DCC, PhNH2, and CF3CO2H in CH2Cl2 at 40° to give 16% I (A1, A2, A4 = Ph; A3 = CH2Ph).

MSTR 1



G1 = pyridyl
 G2 = CH2CN
 G11 = alkyl <containing 1-18 C>
 G25 = 359

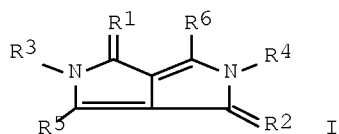
³⁵⁹H—G11

Patent location: claim 1

L7 ANSWER 12 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 138:114835 MARPAT Full-text
 TITLE: Organic electroluminescent material and organic electroluminescent element
 INVENTOR(S): Suda, Yasumasa
 PATENT ASSIGNEE(S): Toyo Ink MFG. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

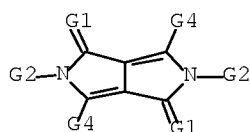
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2003027049 | A | 20030129 | JP 2001-221016 | 20010723 |
| PRIORITY APPLN. INFO.: | | | JP 2001-221016 | 20010723 |

GI



AB The invention refers to an organic electroluminescent material I [R1,2 = O or cyano-substituted N, where both R1 and R1 may not be O; R3,4 = H, halo, alkyl, alkenyl, aryl, heterocyclic or COOR7; R7 = alkyl, alkenyl, aryl or heterocyclic; R5,6 = aryl or heterocyclic].

MSTR 1



G1 = (up to 1) O
G2 = 15

$15(O) \cdot O - G3$

G4 = pyridyl

Patent location: claim 1

L7 ANSWER 13 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 134:253732 MARPAT Full-text
TITLE: Substituted pyrrolo[2,3-c]pyrrole-1,4-diketone type compounds and their single ring-opening derivatives for colorants
INVENTOR(S): Iqbal, Abul; Hao, Zhimin; Yoshihara, Toshio; Ito, Kiyoshi; Nakamura, Kazuhiko; Furukawa, Minoru
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding, Inc., Switz.; Dai Nippon Printing Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

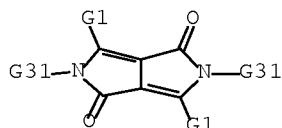
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| JP 2001081346 | A | 20010327 | JP 1999-240509 | 19990826 |

PRIORITY APPLN. INFO.:

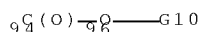
JP 1999-240509 19990826

AB The colorants are prepared which have good dispersibility in organic solvents and are useful for coloring plastics, inks, coatings, etc.

MSTR 1



G1 = pyridyl
G31 = 94



Patent location: claim 1
Note: substitution is restricted
Note: also incorporates claim 10

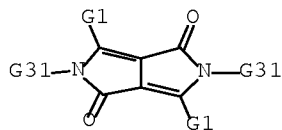
L7 ANSWER 14 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 134:229773 MARPAT Full-text
TITLE: Color filter for liquid crystal displays
INVENTOR(S): Yoshiwara, Toshio; Ito, Kiyoshi; Nakamura, Kazuhiko;
Furukawa, Minoru
PATENT ASSIGNEE(S): Dai Nippon Printing Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| JP 2001066410 | A | 20010316 | JP 1999-240390 | 19990826 |
| US 6656985 | B1 | 20031202 | US 2000-640175 | 20000817 |
| US 2004050294 | A1 | 20040318 | US 2003-642212 | 20030818 |
| US 7175948 | B2 | 20070213 | | |

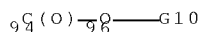
PRIORITY APPLN. INFO.:

| | |
|----------------|----------|
| JP 1999-240390 | 19990826 |
| JP 1999-240508 | 19990826 |
| JP 1999-240510 | 19990826 |
| US 2000-640175 | 20000817 |

AB The invention relates to a LCD color filter, a color layer of which contains a sp. pyrrolo[3,4-c]pyrrole derivative therein formed on a translucent substrate to improve the spectral characteristics such as color purity, high transmittance, and high contrast.



G1 = pyridyl
G31 = 94

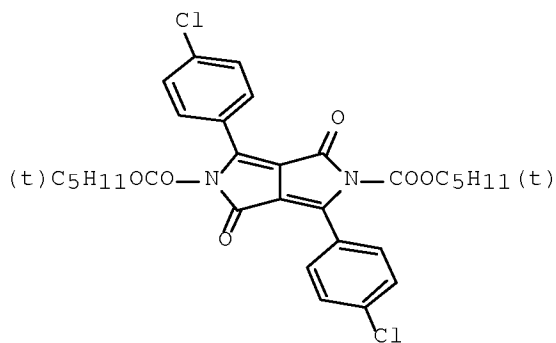


Patent location: claim 1
Note: substitution is restricted
Note: also incorporates claim 10

L7 ANSWER 15 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 134:18664 MARPAT Full-text
TITLE: Manufacture of calcined and colored pencil cores
INVENTOR(S): Kitasawa, Katsunori
PATENT ASSIGNEE(S): Mitsubishi Pencil Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| JP 2000336298 | A | 20001205 | JP 1999-149188 | 19990528 |
| WO 2000073394 | A1 | 20001207 | WO 2000-JP3138 | 20000516 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2000044339 | A | 20001218 | AU 2000-44339 | 20000516 |
| DE 10084661 | T0 | 20020508 | DE 2000-10084661 | 20000516 |
| US 6746524 | B1 | 20040608 | US 2001-979774 | 20011128 |
| PRIORITY APPLN. INFO.: | | | JP 1999-149188 | 19990528 |
| | | | WO 2000-JP3138 | 20000516 |

GI

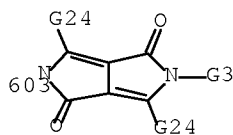


AB Title eraser-erasable cores, with good mech. strength and light resistance, are prepared by forming white or light-colored porous calcined bodies, filling the pores with organic solns. of XYm (X = color-developing group residue; Y = H, COOL, L = soluble group with at least one of Y = COOL; m = 1-8), and heating in order to convert XYm into pigments. A 0.57-mm porous calcined core (prepared from BN-containing PVC composition and perhydropolysilazane) with flexural modulus (Mf) of 250.5 MPa was soaked in 15% I-containing PhMe solution, left at room temperature for 24 h, and heated at 180° for 20 min to form a red core with Mf 252.1 MPa and 99.8% erasability.

MSTR 1

G1—G3

G1 = 603



G3 = 17

$17(O)-O-G2$

G24 = pyridyl

Patent location:

Note:

claim 1

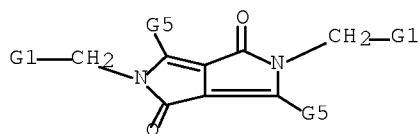
substitution is restricted

ACCESSION NUMBER: 133:325467 MARPAT Full-text
 TITLE: Cosmetic make-up compositions comprising a pyrrolopyrrole pigment
 INVENTOR(S): Simon, Jean-Christophe
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| EP 1046389 | A1 | 20001025 | EP 2000-401101 | 20000420 |
| EP 1046389 | B1 | 20030813 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| FR 2792526 | A1 | 20001027 | FR 1999-5134 | 19990422 |
| FR 2792526 | B1 | 20010727 | | |
| BR 2000001232 | A | 20010424 | BR 2000-1232 | 20000418 |
| CA 2306337 | A1 | 20001022 | CA 2000-2306337 | 20000420 |
| CN 1271570 | A | 20001101 | CN 2000-106090 | 20000420 |
| AT 246914 | T | 20030815 | AT 2000-401101 | 20000420 |
| ES 2199747 | T3 | 20040301 | ES 2000-401101 | 20000420 |
| US 6372202 | B1 | 20020416 | US 2000-557180 | 20000421 |
| JP 2000336015 | A | 20001205 | JP 2000-122128 | 20000424 |
| PRIORITY APPLN. INFO.: | | | FR 1999-5134 | 19990422 |

AB Cosmetic make-up compns. comprising orange pigments generating no free radicals, e.g. diketodiarylpyrrolopyrrole derivs., are disclosed (Markush structure given). A lipsticks contained polyethylene wax 14, sesame oil 78, a tert-Bu derivative of 1,4-diketo-3,6-diphenylpyrrolo[3,4-c]pyrrole 5, and titanium dioxide 3 g.

MSTR 1



G5 = pyridyl

Patent location: claim 2

Note: substitution is restricted

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 130:126360 MARPAT Full-text
 TITLE: Production of fine pigment dispersions
 INVENTOR(S): Sieber, Werner; Hall-Gouille, Veronique

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 93 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

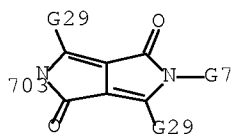
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| WO 9901511 | A1 | 19990114 | WO 1998-EP3948 | 19980629 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9887301 | A | 19990125 | AU 1998-87301 | 19980629 |
| EP 993490 | A1 | 20000419 | EP 1998-938669 | 19980629 |
| EP 993490 | B1 | 20030226 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| JP 2002514263 | T | 20020514 | JP 1999-506299 | 19980629 |
| US 6001168 | A | 19991214 | US 1998-107531 | 19980630 |
| US 6071989 | A | 20000606 | US 1998-107545 | 19980630 |
| US 6165681 | A | 20001226 | US 1999-376188 | 19990817 |
| US 6211347 | B1 | 20010403 | US 2000-539912 | 20000330 |
| PRIORITY APPLN. INFO.: | | | CH 1997-1573 | 19970630 |
| | | | CH 1997-2896 | 19971216 |
| | | | CH 1997-822 | 19970409 |
| | | | CH 1997-823 | 19970409 |
| | | | US 1998-57090 | 19980408 |
| | | | WO 1998-EP3948 | 19980629 |
| | | | US 1998-107545 | 19980630 |

AB The title dispersions, with high stability and good transparency, are prepared by treating mixts. of latent pigments and polymers with chems., heat, or light before or after addition of a solvent. The dispersions are especially useful in the production of color filters. A latent pyrrolopyrrole derivative pigment was mixed (200 mg) in dioxane with 1 g maleic anhydride-octadecene copolymer (mol. weight 50,000), dried at 60° in vacuo and then at 140°, dispersed in dioxane, the polymer was dissolved using ultrasound, and the dispersion was mixed with 700 µL morpholine and 20 mL H2O and dried in vacuo to give a red, homogeneous, transparent dispersion with viscosity 2.16 mPa-s at 25° which showed no precipitation after several days.

MSTR 1B

G1—G7

G1 = 703



G7 = 17

$19(0)-O-G5$

G29 = pyridyl

Patent location:

claim 7

Note:

substitution is restricted

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 18 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 130:168757 MARPAT Full-text

TITLE: Polymerizable diketopyrrolopyrroles

INVENTOR(S): Eldin, Sameer

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

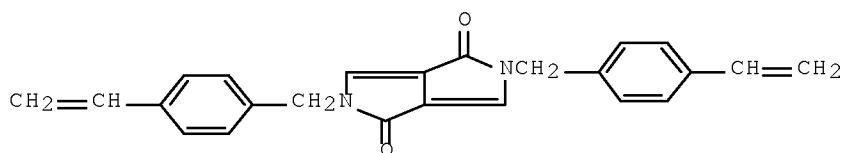
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| EP 894798 | A1 | 19990203 | EP 1998-810703 | 19980721 |
| EP 894798 | B1 | 20051109 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| US 5919944 | A | 19990706 | US 1998-119434 | 19980720 |
| CA 2244316 | A1 | 19990130 | CA 1998-2244316 | 19980728 |
| TW 402602 | B | 20000821 | TW 1998-87112321 | 19980728 |
| JP 11092477 | A | 19990406 | JP 1998-213628 | 19980729 |
| US 6107491 | A | 20000822 | US 1999-237640 | 19990126 |
| PRIORITY APPLN. INFO.: | | | CH 1997-1822 | 19970730 |
| | | | US 1998-119434 | 19980720 |

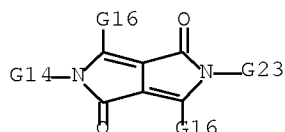
GI



I

AB The title compds., with specified structures and giving polymers resisting O and UV, are prepared by the reaction of diketopyrrolopyrroles containing NH groups with organic halides of specified structure in the presence of bases. Adding 0.150 mol 4-(chloromethyl)styrene over 30 min to 0.05 mol Pigment Red 3067E and 0.150 mol K₂CO₃ stirred in DMF containing hydroquinone at 120-125° and stirring at that temperature for 160 min gave 92.1% diketopyrrolopyrrole I. Photopolymn. of the products with the monomer Laromer EA 81 is exemplified.

MSTR 1



G1 = CH₂
 G14 = alkyl <containing 1-6 C>
 G16 = pyridyl
 G23 = 11

$1G1-1G4-G5-1G9$

Patent location: claim 1
 Note: substitution is restricted

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 19 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 129:176908 MARPAT Full-text
 TITLE: Soluble chromophores having improved solubilizing groups and their use
 INVENTOR(S): Hall-Gouille, Veronique; Bize, Aline
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 64 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| WO 9832802 | A1 | 19980730 | WO 1998-EP248 | 19980117 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, | | | | |

NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
 UA, UG, UZ, VN, YU, ZW
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
 FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
 GA, GN, ML, MR, NE, SN, TD, TG

| | | | | |
|---------------------------|----|----------|------------------|----------|
| CA 2275965 | A1 | 19980730 | CA 1998-2275965 | 19980117 |
| AU 9862109 | A | 19980818 | AU 1998-62109 | 19980117 |
| EP 968250 | A1 | 20000105 | EP 1998-904092 | 19980117 |
| EP 968250 | B1 | 20010418 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| JP 2001513119 | T | 20010828 | JP 1998-531549 | 19980117 |
| TW 444051 | B | 20010701 | TW 1998-87100901 | 19980123 |
| US 6274728 | B1 | 20010814 | US 1999-465868 | 19991216 |

PRIORITY APPLN. INFO.:

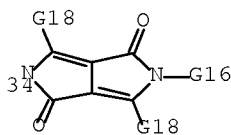
| | |
|---------------|----------|
| CH 1997-171 | 19970127 |
| WO 1998-EP248 | 19980117 |
| US 1998-13659 | 19980226 |

AB The colorants A(B)x (x = 1-8; A = radical of a chromophore of the quinacridone, anthraquinone, perylene, indigo, quinophthalone, indanthrone, isoindolinone, isoindoline, dioxazine, azo, phthalocyanine or diketopyrrolopyrrole series; B = H or solubilizing group) are obtained whereby A is bonded to x groups B via one or more hetero atoms, those hetero atoms being selected from the group consisting of N, O, and S and forming part of the radical A. The colorants are used in high-mol.-weight organic materials, thermo-, photo-, or chemo-sensitive recording materials, light-sensitive neg. or pos. resist compns., ink compns. for ink-jet printing, and color tapes for thermal transfer printing. The soluble chromophore derivs. can be converted to the underivatized form (B = H) by heating after they are incorporated into a substrate. Thus, bis(1,1-dimethyl-3,7-dioxa-1-heptyl) oxydicarbonate was prepared and used to treat C.I. Pigment Violet 37, giving the red tetrakis(1,1,-dimethyl-3,7- dioxo-1-heptyloxycarbonyl) derivative of C.I. Pigment Violet 37 in 65% yield; this pigment was used in a coating composition

MSTR 1B

G1—G16

G1 = 34



G16 = 2

ζ(O)—O—G2—G6—G7

G18 = pyridyl
 Patent location: claim 1
 Note: also incorporates claim 7
 Note: additional carbonyl, phenylene, and heteroatom
 interruptions claimed
 Note: substitution is restricted

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

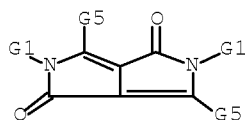
L7 ANSWER 20 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 128:309528 MARPAT Full-text
 TITLE: Pigment granulation
 INVENTOR(S): Balliello, Paolo; Brucker, Horst Olaf
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.;
 Balliello, Paolo; Brucker, Horst Olaf
 SOURCE: PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9817729 | A1 | 19980430 | WO 1997-EP5603 | 19971010 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2265520 | A1 | 19980430 | CA 1997-2265520 | 19971010 |
| AU 9851181 | A | 19980515 | AU 1998-51181 | 19971010 |
| EP 934364 | A1 | 19990811 | EP 1997-945813 | 19971010 |
| EP 934364 | B1 | 20021204 | | |
| R: BE, CH, DE, FR, GB, IT, LI, NL | | | | |
| CN 1234053 | A | 19991103 | CN 1997-198984 | 19971010 |
| CN 1085235 | B | 20020522 | | |
| BR 9713272 | A | 20000328 | BR 1997-13272 | 19971010 |
| JP 2001502730 | T | 20010227 | JP 1998-518902 | 19971010 |
| US 6241813 | B1 | 20010605 | US 1999-269498 | 19990329 |
| KR 2000052698 | A | 20000825 | KR 1999-703491 | 19990421 |
| US 2001006034 | A1 | 20010705 | US 2001-783902 | 20010215 |
| US 6423132 | B2 | 20020723 | | |
| PRIORITY APPLN. INFO.: | | | CH 1996-2580 | 19961022 |
| | | | WO 1997-EP5603 | 19971010 |
| | | | US 1999-269498 | 19990329 |

AB Organic pigment granules with particle size 0.5-4 mm are prepared using a mixture of ≥90% organic pigment, 0-10% binder (such as Staybelite Resin), and 0-5% neutral emulsifier (such as Emulan OSN) which does not form ions and which dissolves to give a clear solution in water or a C1-4 alc. The mixture is pressed in a continuously operating apparatus consisting of at least one conveying device and a shaping section, and being constructed and operated with a throughput, such that the pressure in its shaping section does not exceed 10 bar. If desired, the cylindrical granules emerging from the dies are converted on a rotating device into ovoid or spherical granules, and the granulated product is dried at a temperature of -50 to +200° at ≤1 atmospheric

The pigments have low dusting tendency and are easily incorporated into macromol. compns. An example using 3,6-bis(4- chlorophenyl)-2,5-dihydropyrrolo[3,4-c]pyrrole-,1-dione was given.

MSTR 1



G1 = alkyl <containing 1-6 C>

G5 = pyridyl

Patent location: claim 5

Note: substitution is restricted

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 21 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 130:13986 MARPAT Full-text

TITLE: Process for preparing diketopyrrolopyrrole derivatives

INVENTOR(S): Hendi, Shivakumar Basalingappa

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Corporation, USA

SOURCE: U.S., 10 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

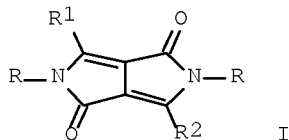
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| US 5840907 | A | 19981124 | US 1997-870353 | 19970605 |
| US 5919945 | A | 19990706 | US 1998-119894 | 19980721 |
| PRIORITY APPLN. INFO.: | | | US 1997-870353 | 19970605 |

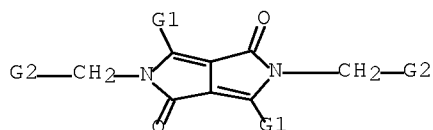
GI



I

AB Bis(hydroxymethyl)pyrrolopyrroles (I; R = CH₂OH; R₁, R₂ = aryl) are prepared by reacting I (R = H; R₁, R₂ = aryl) with formaldehyde. I (R = CH₂OH; R₁, R₂ = aryl) can be isolated or further reacted in a one pot synthesis to yield I (R = organyl; R₁, R₂ = aryl).

MSTR 1



G1 = pyridyl

Patent location: claim 1

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 22 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 129:162886 MARPAT Full-text

TITLE: Viscosity reducing 1,4-diketo-3,6-diarylpyrrolo[3,4-c]pyrrole derivatives

INVENTOR(S): Hendi, Shivakumar B.

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Corporation, USA

SOURCE: U.S., 8 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

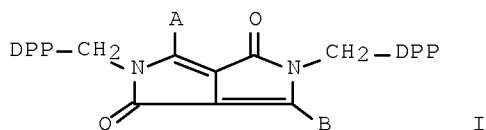
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

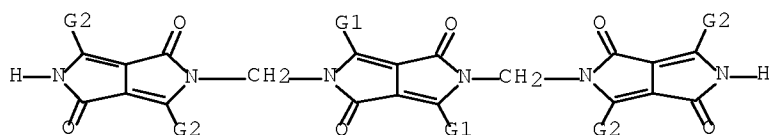
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| US 5786487 | A | 19980728 | US 1997-938658 | 19970926 |
| PRIORITY APPLN. INFO.: | | | US 1997-938658 | 19970926 |

GI



AB The title pyrrolopyrrole (DPP) derivs. are I (A, B = aryl), substituted by 0-6 mol SO₃M/mol I; where M = H or a metal or ammonium cation, and show excellent rheol. enhancing properties for pigment dispersions, especially those containing quinacridones, DPPs and their solid solution pigments. Thus, 1,4-diketo-3,6-diphenylpyrrolo[3,4-c]pyrrole (II) and paraformaldehyde in concentrated (96%) H₂SO₄ at .apprx.45° gave an intermediate which reacts with 2 mol II to give a product sulfate, suitable for pigments for coatings.

MSTR 1



G1 = pyridyl

Patent location:

claim 1

Note:

substitution is restricted

REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 23 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 129:162885 MARPAT Full-text

TITLE: Viscosity reducing 1,4-diketo-3,6-diarylprrrolo[3,4-c]pyrrole derivatives

INVENTOR(S): Hendi, Shivakumar B.

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Corporation, USA

SOURCE: U.S., 8 pp.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

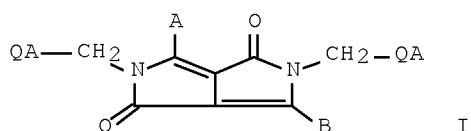
English

FAMILY ACC. NUM. COUNT: 1

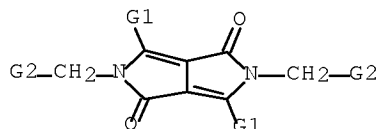
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| US 5785750 | A | 19980728 | US 1997-938656 | 19970926 |
| PRIORITY APPLN. INFO.: | | | US 1997-938656 | 19970926 |

GI



AB The title pyrrolopyrrole (DPP) derivs. are I (QA = quinacridone radical, A, B = aryl), substituted by 0-6 mol SO3M/mol I; where M = H or a metal or ammonium cation, and show excellent rheol. enhancing properties for pigment dispersions, especially those containing quinacridones, DPPs and their solid solution pigments. Thus, 1,4-diketo-3,6-diphenylpyrrolo[3,4-c]pyrrole, quinacridone, and paraformaldehyde in concentrated (96%) H2SO4 at .apprx.45° gave I (A, B = Ph) sulfate, suitable for pigments for coatings.



G1 = pyridyl

Patent location:

claim 1

Note:

substitution is restricted

REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 24 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 126:178818 MARPAT Full-text

TITLE: Organic electroluminescent device and pyrrolo[3,4-c]pyrrol-based electron-transporting material for it

INVENTOR(S): Enokida, Toshio; Tamano, Michiko

PATENT ASSIGNEE(S): Toyo Ink Mfg Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

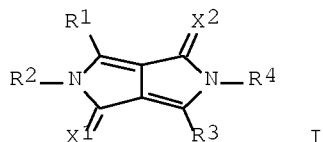
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 09003448 | A | 19970107 | JP 1995-157300 | 19950623 |
| JP 3704748 | B2 | 20051012 | | |

PRIORITY APPLN. INFO.:

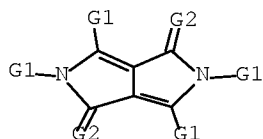
JP 1995-157300 19950623

GI



I

AB The material is I [R1-4 = H, (un)substituted aliphatic (cyclic) group, (un)substituted aromatic ring, (un)substituted heterocycle; X1, X2 = O, S, dicyanomethylene]. The device, including a pair of electrode retaining an emitting layer (and an electron-injecting layer) between them, contains I in the emitting layer (or in the electron-injecting layer). The device shows high luminance and long service life.



G1 = carbon chain (opt. substd. by 1 or more G3) /
pyridyl

G2 = O

Patent location: claim 1

L7 ANSWER 25 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 127:191922 MARPAT Full-text

TITLE: Polymerizable diketo pyrrolopyrroles, their
preparation and (co)polymerization

INVENTOR(S): Eldin, Sameer Hosam; Iqbal, Abul

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

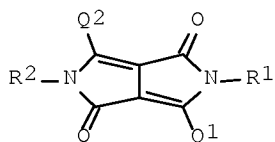
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------------|------|----------|------------------|----------|
| EP 787731 | A2 | 19970806 | EP 1997-810031 | 19970122 |
| EP 787731 | A3 | 19970813 | | |
| EP 787731 | B1 | 20020807 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| CA 2196137 | A1 | 19970731 | CA 1997-2196137 | 19970128 |
| TW 407149 | B | 20001001 | TW 1997-86100903 | 19970128 |
| CN 1165823 | A | 19971126 | CN 1997-102512 | 19970129 |
| US 5847156 | A | 19981208 | US 1997-789893 | 19970129 |
| JP 09323992 | A | 19971216 | JP 1997-16467 | 19970130 |
| US 6048918 | A | 20000411 | US 1998-146648 | 19980903 |
| PRIORITY APPLN. INFO.: | | | CH 1996-227 | 19960130 |
| | | | US 1997-789893 | 19970129 |

GI

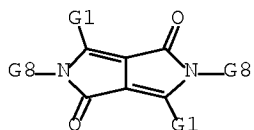


I

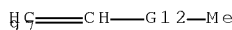
AB The polymerizable dyes, which can be incorporated in or grafted to polymers to be colored, have the structure I [Q1, Q2 = specified (un)substituted (hetero)aryl residues; R1 = C>3 polymerizable group; R2 = R1, C1-6 alkyl,

C₆H₄R₃; R₃ = H, C₁-6 alkyl]. Thus, I (Q₁ = Q₂ = Ph, R₁ = R₂ = H) was condensed with 2 mol Cl(CH₂)₆OH, and the product was polymerized with hexamethylene diisocyanate to give an orange-red polyurethane.

MSTR 1



G1 = pyridyl
G8 = 97



G12 = (0-12) CH₂

Patent location: claim 1

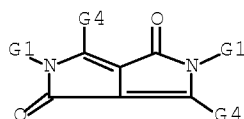
L7 ANSWER 26 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 126:344541 MARPAT Full-text
 TITLE: Colored metallic pigment and preparation thereof
 INVENTOR(S): Suzuki, Masakazu; Nakaminami, Hiroshi; Homma, Seiji
 PATENT ASSIGNEE(S): Japat Ltd., Switz.
 SOURCE: Eur. Pat. Appl., 20 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| EP 769535 | A2 | 19970423 | EP 1996-810681 | 19961011 |
| EP 769535 | A3 | 19970917 | | |
| EP 769535 | B1 | 20000719 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| US 5718753 | A | 19980217 | US 1996-730450 | 19961015 |
| CA 2188216 | A1 | 19970421 | CA 1996-2188216 | 19961018 |
| JP 09132730 | A | 19970520 | JP 1996-276256 | 19961018 |
| PRIORITY APPLN. INFO.: | | | EP 1995-810653 | 19951020 |

AB The instant invention relates to a process for the production of colored metallic pigments, as well as these colored metallic pigments themselves, their use to color high mol. weight organic material in the mass and compns. or masterbatches containing them. The colored metallic pigment consists essentially of multiple loose particles of 0.1-1000 µm size each, said particles comprising a core of a transition metals, half metal or alloy, preferably an aluminum flake, and a very fine, substantially continuous, uniform and homogeneous layer of organic pigment particles which is directly

in contact with the metallic core. The core may be superficially oxidized. The colored metallic pigment is prepared by a vacuum deposition process, said process being performed in an apparatus constructed, modified or charged in such a way that the organic pigment gas flows in direction of the metallic core. These pigments have high color intensity and reflectance and are useful for effect pigments in coatings.

MSTR 15



G1 = alkyl <containing 1-6 C>
(opt. substd. by 1 or more G3)

G4 = pyridyl

Patent location: claim 8

L7 ANSWER 27 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 126:306382 MARPAT Full-text

TITLE: Monophasic solid solutions with asymmetrical pyrrolo[3,4-c]pyrroles as host, their preparation and use as pigments

INVENTOR(S): Hao, Zhimin; Iqbal, Abul

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

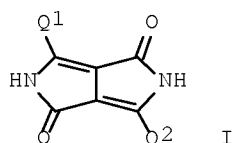
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

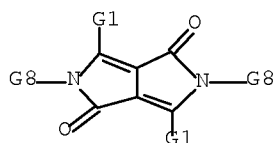
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|------------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| EP 765919 | A2 | 19970402 | EP 1996-810617 | 19960917 |
| EP 765919 | A3 | 19980401 | | |
| EP 765919 | B1 | 20010221 | | |
| R: CH, DE, FR, GB, LI | | | | |
| TW 404973 | B | 20000911 | TW 1996-85110397 | 19960827 |
| US 5756746 | A | 19980526 | US 1996-700349 | 19960923 |
| CA 2186319 | A1 | 19970327 | CA 1996-2186319 | 19960924 |
| CN 1159464 | A | 19970917 | CN 1996-122532 | 19960925 |
| CN 1076744 | B | 20011226 | | |
| JP 09132728 | A | 19970520 | JP 1996-255046 | 19960926 |
| PRIORITY APPLN. INFO.: | | | CH 1995-2719 | 19950926 |

GI



AB The solid solns., useful as light- and weather-resistant pigments, have the crystal structure of the major component (60-90 mol%) I [Q1, Q2 = (un)substituted Ph, naphthyl, 3- or 4-pyridyl; Q1 ≠ Q2] and contain 10-40 mol% of a different I (Q1, Q2 = Ph, 3- or 4-pyridyl, C6H4R-3 or -4; R = F, Cl, CN, NO2, CF3, Cl-4 alkyl, Cl-4 alkoxy, NR1R2; R1 = Cl-4 alkyl; R2 = H, Cl-4 alkyl) or of a quinacridone with limited substitution. Thus, a mixture of 1.4 mmol 2,9-dichloroquinacridone, 5.6 mmol I (Q1 = C6H4CMe3-4, Q2 = C6H4Cl-4), and 1.18 g KOH in 40 mL DMSO at 50° was treated with a solution of 0.7 mL concentrated H2SO4 in a mixture of 40 mL MeOH and 120 mL H2O during 15 min and stirred 5 h at 60° to precipitate the solid solution as a red powder.

MSTR 8



G1 = 4-pyridyl

G8 = CO2CH2Ph

Patent location:

claim 13

Note:

substitution is restricted

L7 ANSWER 28 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 126:278956 MARPAT Full-text

TITLE: Solid solutions of 1,4-diketopyrrolopyrroles and polymers containing them

INVENTOR(S): Hao, Zhimin; Wallquist, Olof

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

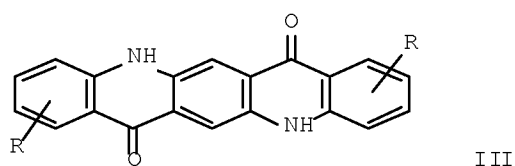
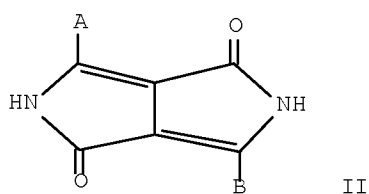
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

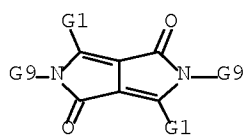
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| ----- | ---- | ----- | ----- | ----- |
| EP 763572 | A2 | 19970319 | EP 1996-810600 | 19960910 |
| EP 763572 | A3 | 19980401 | | |
| EP 763572 | B1 | 20020410 | | |
| R: CH, DE, FR, GB, LI | | | | |

| | | | | |
|------------------------|----|----------|-----------------|----------|
| US 5821373 | A | 19981013 | US 1996-712722 | 19960912 |
| CA 2185618 | A1 | 19970319 | CA 1996-2185618 | 19960916 |
| CN 1158873 | A | 19970910 | CN 1996-122501 | 19960917 |
| CN 1076369 | B | 20011219 | | |
| JP 09132575 | A | 19970520 | JP 1996-245802 | 19960918 |
| PRIORITY APPLN. INFO.: | | | CH 1995-2630 | 19950918 |
| GI | | | | |



AB Solid solns. of 3,6-bis(4-biphenyl)-2,5-dihydropyrrolo[3,4-c]pyrrole-1,4-dione (I) with II (A, B = aromatic or heterocyclic group) or III (R = H, halogen, alkyl, alkoxy) in a (20-90):(10-80) ratio have good pigment properties and dispersibility in plastics and coatings. In an example, a 1:4 solid solution obtained from I and II (A = B = Ph), with both compds. being initially mixed in the form of their N,N-bis(tert-butoxycarbonyl) derivs. for enhanced solubility, was used in a red sprayable and bakeable topcoat composition

MSTR 9



G1 = pyridyl
G9 = CO₂CH₂Ph

Patent location: claim 5

TITLE: Soluble chromophores containing solubilizing groups which can be easily removed, pigments therefrom and their use

INVENTOR(S): Hall-Goulle, Veronique

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Can. Pat. Appl., 48 pp.
CODEN: CPXXEB

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

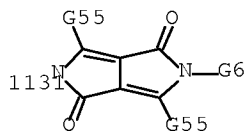
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|------------------------|------|----------|------------------|----------------|----------|
| CA 2182147 | A1 | 19970129 | CA 1996-2182147 | 19960726 | |
| TW 473518 | B | 20020121 | TW 1996-85108166 | 19960706 | |
| TW 444006 | B | 20010701 | TW 1996-85108281 | 19960709 | |
| EP 761772 | A1 | 19970312 | EP 1996-810476 | 19960719 | |
| EP 761772 | B1 | 20000315 | | | |
| R: CH, DE, FR, GB, LI | | | | | |
| EP 764628 | A1 | 19970326 | EP 1996-810475 | 19960719 | |
| EP 764628 | B1 | 20010314 | | | |
| R: CH, DE, FR, GB, LI | | | | | |
| US 5750758 | A | 19980512 | US 1996-681205 | 19960722 | |
| US 6063924 | A | 20000516 | US 1996-681204 | 19960722 | |
| JP 09048929 | A | 19970218 | JP 1996-197273 | 19960726 | |
| JP 09052868 | A | 19970225 | JP 1996-197274 | 19960726 | |
| CN 1148585 | A | 19970430 | CN 1996-112105 | 19960727 | |
| US 6222047 | B1 | 20010424 | US 1998-6360 | 19980113 | |
| US 6359122 | B1 | 20020319 | US 2001-767313 | 20010123 | |
| PRIORITY APPLN. INFO.: | | | | CH 1995-2222 | 19950728 |
| | | | | CH 1995-2968 | 19951019 |
| | | | | US 1996-681205 | 19960722 |
| | | | | US 1998-6360 | 19980113 |

AB Compds. of formula A(B)x, wherein x is an integer from 1 to 4, A is the radical of a chromophore of the quinacridone, anthraquinone, perylene, indigo, quinophthalone, isoindolinone, isoindoline, dioxazine, phthalocyanine, diketopyrrolopyrrole or azo series, which radical A contains x N-atoms linked with B, preferably with at least one immediately adjacent or conjugated carbonyl group. B is a group of formula CO₂Q and, if x = 2, 3 or 4, can also be one, two or three hydrogen atom(s), and Q is a group of formula CR₁R₂CR₃:CR₄R₅, CR₁R₂C.tplbond.CR₆, or CR₁R₂X, where R₁, R₂, R₃, R₄, R₅, R₆ =H, organic group; X = optionally substituted Ph. These soluble chromophores can be readily converted to the corresponding pigments by heating, even in the substrate into which they can be incorporated without any difficulty in dissolved form. The pigments AHx can thus be readily incorporated into recording and luminescent materials. Examples are given for the preparation and use of bis(2-methyl-3-butyn-2-yl), bis(2-methyl-3-buten-2-yl), and bis(3-methyl-2-buten-1-yl) dicarbonates as acylating agents to provide facile leaving groups for diphenylpyrrolo[3,4-c]pyrrolidinedione, quinacridone, and indigo. The thermal decomposition temps. required are at least 30° lower than those associated with di-tert-Bu dicarbonate.

MSTR 1

G1 = 1131



G6 = 363

${}_{363}^{G6(O)}-G15$

G55 = pyridyl (opt. substd.)

G56 = 132

${}_{132}^{G5(O)}-G14$

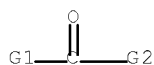
Patent location: claim 1
Note: also incorporates claim 11
Note: substitution is restricted

L7 ANSWER 30 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 126:20140 MARPAT Full-text
TITLE: Structured pigment coating and its manufacture and use
INVENTOR(S): Zambounis, John; Hofmann, Manfred
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

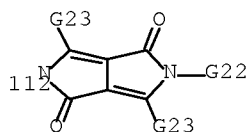
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| ----- | ---- | ----- | ----- | ----- |
| EP 742556 | A1 | 19961113 | EP 1996-810278 | 19960501 |
| EP 742556 | B1 | 20021002 | | |
| R: CH, DE, FR, GB, IT, LI, NL, SE | | | | |
| TW 472072 | B | 20020111 | TW 1996-85103597 | 19960326 |
| TW 505647 | B | 20021011 | TW 1996-85105241 | 19960502 |
| US 5840449 | A | 19981124 | US 1996-643723 | 19960506 |
| CA 2176290 | A1 | 19961113 | CA 1996-2176290 | 19960510 |
| JP 09003362 | A | 19970107 | JP 1996-116268 | 19960510 |
| CN 1150166 | A | 19970521 | CN 1996-110346 | 19960511 |
| CN 1085710 | B | 20020529 | | |
| CN 1312339 | A | 20010912 | CN 2000-137052 | 20001228 |
| PRIORITY APPLN. INFO.: | | | CH 1995-1394 | 19950512 |

AB Latent forms of pigments containing protected NH groups or phthalocyanines are applied in solution or melt form to a substrate and the protective groups are removed to provide the pigments as coatings on the substrate. The protective groups may be removed by means of heat, laser, or acid/base vapor. The coating is faster than sublimation or crystallization methods and selectivity may be exercised in regard to surface application and color development. The pigments may have applications as color filters or in information storage. In an example, a dioxane solution of N,N'-bis(tert-butoxycarbonyl)-3,6-diphenyl-1,4-diketopyrrolo[3,4-c]pyrrole was applied to glass and heated to 200° to provide a coating of 2,5-dihydro-3,6-diphenyl-1,4-diketopyrrolo[3,4-c]pyrrole of excellent transparency and homogeneity.

MSTR 2



G1 = 112



G22 = 655

⁶⁵(O)-G49

G23 = 4-pyridyl

Patent location: claim 1

L7 ANSWER 31 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 125:181169 MARPAT Full-text
 TITLE: Electrophotographic photoreceptor
 INVENTOR(S): Takahashi, Ryuichi; Yamamoto, Kazuyo; Igbal, Abul; Hao, Zhimin
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.; Japat Ltd
 SOURCE: Eur. Pat. Appl., 46 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|-------|-----------------|-------|
| ----- | ---- | ----- | ----- | ----- |

EP 718697 A2 19960626
 EP 718697 A3 19960703
 EP 718697 B1 20011121

R: CH, DE, FR, GB, LI

CA 2165760 A1 19960623
 JP 08234460 A 19960913
 JP 3641310 B2 20050420
 US 5718998 A 19980217

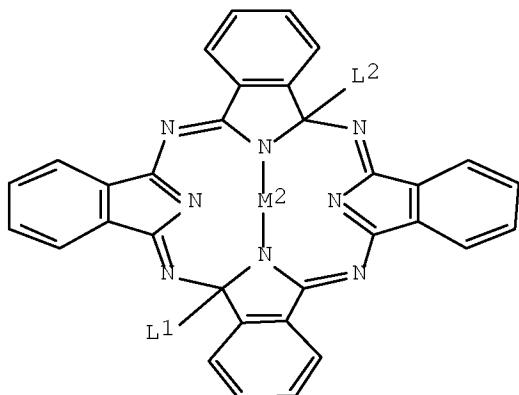
EP 1995-810788 19951213

CA 1995-2165760 19951220
 JP 1995-334416 19951222

US 1995-577333 19951222
 JP 1994-320810 19941222

PRIORITY APPLN. INFO.:

GI

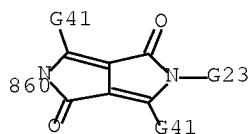


AB The invention is related to an electrophotog. photoreceptor, its preparation, and its use in electrophotog. The instant photoreceptor comprises a conductive substrate and a photosensitive layer containing an organic pigment as a charge-generating material, wherein the organic pigment is formed from a soluble organic pigment precursor. Particularly suitable soluble pigment precursors are compds. having formula AD1(D2)x or I, wherein A represents a chromophore residue of perylene, quinacridone, dioxazine, anthraquinone, azo, phthalocyanine, isoindolinone, isoindoline, indigo, quinophthalone, or pyrrolopyrrole with 1 to 5 N atoms bound to the D1 and D2 groups, whereby each N atom of A is bound to 0, 1, or 2 groups of D1 and D2, D1 and D2 are carboxylate groups, x is an integer of 0-4, L1 and L2 are halogen, amino, or alkoxy, and M2 is 2 hydrogen atoms or a metal or oxometal with at least 2 valences.

MSTR 1

G1—C(O)G2

G1 = 860



G23 = 245

$2G41(0)-G22$

G41 = pyridyl

Derivative: or derivatives

Patent location: claim 2

Note: substitution is restricted

L7 ANSWER 32 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 124:319682 MARPAT Full-text

TITLE: Mixed crystals and solid solutions of
1,4-diketopyrrolo[3,4-c]pyrroles and their preparation
and polymeric materials containing them

INVENTOR(S): Hao, Zhimin; Iqbal, Abul; Medinger, Bernhard;
Wallquist, Olof

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

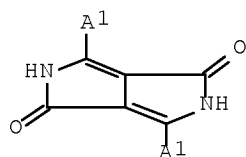
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

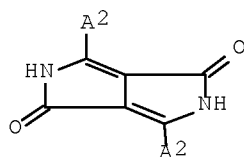
PATENT INFORMATION:

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| EP 704497 | A1 | 19960403 | EP 1995-810590 | 19950920 |
| EP 704497 | B1 | 19991215 | | |
| R: CH, DE, FR, GB, IT, LI, NL | | | | |
| CA 2159171 | A1 | 19960329 | CA 1995-2159171 | 19950926 |
| CN 1130661 | A | 19960911 | CN 1995-117786 | 19950927 |
| CN 1066767 | B | 20010606 | | |
| JP 08199085 | A | 19960806 | JP 1995-250465 | 19950928 |
| JP 3862772 | B2 | 20061227 | | |
| US 5708188 | A | 19980113 | US 1995-535438 | 19950928 |
| PRIORITY APPLN. INFO.: | | | CH 1994-2936 | 19940928 |

GI



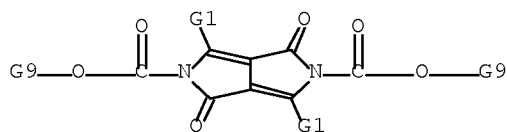
I



II

AB Equimolar mixts. (crystalline) and solid solns. of the sym. diaryldiketopyrrolopyrroles I and II (A1, A2 = aromatic or heterocyclic aryl groups) with pigment properties equivalent to those of the corresponding individual asym. diaryldiketopyrrolopyrroles (more difficult to prepare) are obtained by first converting the pigments into a soluble form such as the N-tert-butoxycarbonyl derivative, mixing the soluble derivs., and then precipitating the mixed crystals by removal of the solubilizing groups. The mixts. are suitable for coloration of plastics and pigments, especially when incorporated into masterbatches. Thus, 1,4-diketo-3,6-diphenylpyrrolo[3,4-c]pyrrole was treated with di-tert-Bu dicarbonate to provide the N,N'-bis(tert-butoxycarbonyl) derivative (III). 1,4-Diketo-3,6-bis(4-tert-butylphenyl)pyrrolo[3,4-c]pyrrole was similarly converted and the product was mixed with an equimolar amount of III and then treated with p-toluenesulfonic acid to remove the N-tert-butoxycarbonyl groups and precipitate 1:1 mixed crystals of I (A1 = Ph) and II (A2 = 4-tert-butylphenyl).

MSTR 3

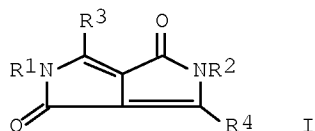


G1 = pyridyl

Patent location: claim 5

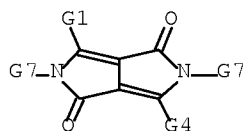
L7 ANSWER 33 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 124:29748 MARPAT Full-text
 TITLE: Preparation of amine oxide group-containing pyrrolo[3,4-c]pyrroles as photoreceptors
 INVENTOR(S): Hao, Zhimin; Iqbal, Abul; Kirchmayr, Rudolf
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 13 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| EP 673939 | A1 | 19950927 | EP 1995-810164 | 19950313 |
| EP 673939 | B1 | 19961023 | | |
| R: CH, DE, FR, GB, LI | | | | |
| US 5502196 | A | 19960326 | US 1995-404012 | 19950314 |
| JP 07268230 | A | 19951017 | JP 1995-60162 | 19950320 |
| JP 3722235 | B2 | 20051130 | | |
| PRIORITY APPLN. INFO.: | | | CH 1994-843 | 19940321 |
| GI | | | | |

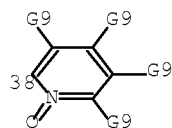


AB Title compds. [I; R1,R2 = H, alkyl, alkoxy, etc.; ≥1 of R3,R4 = heteroaryl amine oxide and the other may be (un)substituted Ph, naphthyl, etc.] were prepared Thus, 4-cyanopyridine N-oxide was cyclocondensed with (CH2CO2CHMe2)2 to give I (R1 = R2 = H, R3 = R4 = 4-pyridyl N-oxide). Formulations comprising I were prepared No performance data were given.

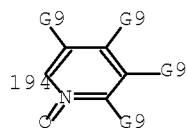
MSTR 1



G1 = 38



G4 = 194



G7 = alkyl <containing 1-18 C>

Patent location: claim 1

Note: substitution is restricted

L7 ANSWER 34 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 123:183553 MARPAT Full-text

TITLE: Compositions for making structured color images and

application thereof.
 INVENTOR(S): Schaedeli, Ulrich; Zambounis, John S.; Iqbal, Abul;
 Hao, Zhimin; Dubas, Henri
 PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij BV, Neth.
 SOURCE: Eur. Pat. Appl., 56 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

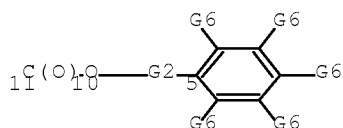
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------------|------|----------|-----------------|----------|
| EP 654711 | A1 | 19950524 | EP 1994-810649 | 19941114 |
| EP 654711 | B1 | 19990602 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| CA 2135657 | A1 | 19950523 | CA 1994-2135657 | 19941118 |
| US 5879855 | A | 19990309 | US 1994-341721 | 19941118 |
| JP 08006242 | A | 19960112 | JP 1994-287689 | 19941122 |
| JP 3510927 | B2 | 20040329 | | |
| US 6040108 | A | 20000321 | US 1998-204190 | 19981203 |
| US 6180315 | B1 | 20010130 | US 1999-458771 | 19991210 |
| PRIORITY APPLN. INFO.: | | | EP 1993-810807 | 19931122 |
| | | | US 1994-341721 | 19941118 |
| | | | US 1998-204190 | 19981203 |

AB Compns. for making structured color images comprising (a) a soluble pigment precursor which can be transformed to an insol. pigment by chemical, thermal, photolytic or radiation-induced method, and (b) a binder polymer or prepolymer, or a pos. or neg. resist-type resin which can be structured by crosslinking, polymerization or depolymn. by applying heat or electromagnetic irradiation The compns. can be applied to optical and thermal recording, printing, and the production of color filters for liquid crystal displays, with high accuracy, high transparency and high stability.

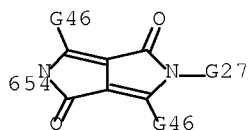
MSTR 1

G18-G1

G1 = 11



G2 = bond
 G18 = 654



G27 = CO₂Bu-t

G46 = pyridyl

Patent location:

claim 3

Note:

substitution is restricted

L7 ANSWER 35 OF 40 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 120:311872 MARPAT Full-text

TITLE: Organic electroluminescent device

INVENTOR(S): Oonishi, Toshihiro; Doi, Hideji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

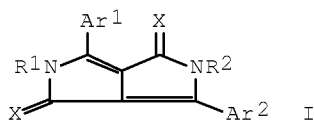
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

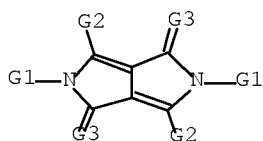
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| JP 05320633 | A | 19931203 | JP 1992-132213 | 19920525 |
| PRIORITY APPLN. INFO.: | | | JP 1992-132213 | 19920525 |

GI



AB The device contains a luminescent layer, sandwiched by a pair of electrodes, containing 0.005-15 parts pyrrolo[3,4-c]pyrrole compound I (R₁-2 = H, C₁-12 alkyl, C₆-14 aryl; Ar₁-2 = C₆-14 aryl, C₄-12 heterocyclic; X = O, S, Se).

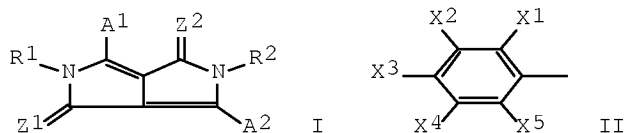
MSTR 1



G1 = alkyl <containing 1-12 C>
 G2 = pyridyl
 G3 = O
 Patent location: claim 1

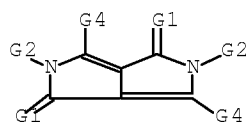
L7 ANSWER 36 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 118:29594 MARPAT Full-text
 TITLE: Organic electroluminescent element
 INVENTOR(S): Matsumura, Michio; Kudo, Tetsu; Wooden, Gary
 PATENT ASSIGNEE(S): Japat Ltd., Switz.
 SOURCE: Eur. Pat. Appl., 22 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| EP 499011 | A1 | 19920819 | EP 1991-810097 | 19910212 |
| R: GB | | | | |
| PRIORITY APPLN. INFO.: | | | EP 1991-810097 | 19910212 |
| GI | | | | |



AB Electroluminescent devices are described which employ as a light-emitting material compds. described by the general formula I (Z1 and Z2 are independently selected from O and S; R1 and R2 are independently selected from H, C1-18 alkyl groups, C3-18 alkenyl groups in which the double bond is not in the C1 position, or a phenylalkyl group with a C1-5 alkyl group; A1 and A2 are independently selected from 3-pyridyl, 4-pyridyl, or groups described by the general formula II in which X1 and X5 are independently selected from H, C1-5 alkyl groups, C1-5 alkoxy groups, or halogens, and X1, X3, and X4 are independently selected from H, C1-5 alkyl groups, C1-5 alkoxy groups, dialkylamino groups with 1-5 C/alkyl group, Ph, CN, -CF3, or halogens).

MSTR 1



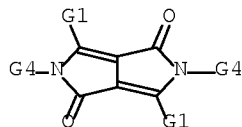
G1 = O
 G2 = CH2Ph
 G4 = 3-pyridyl
 Patent location: claim 1
 Note: substitution is restricted

L7 ANSWER 37 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 116:265222 MARPAT Full-text
 TITLE: New electrochromic compositions based on
 diketopyrrolopyrroles
 INVENTOR(S): Mizuguchi, Jin; Rochat, Alain Claude
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 13 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| EP 467846 | A1 | 19920122 | EP 1991-810557 | 19910711 |
| EP 467846 | B1 | 19940831 | | |
| R: CH, DE, FR, GB, LI | | | | |
| US 5169953 | A | 19921208 | US 1991-730418 | 19910716 |
| CA 2047392 | A1 | 19920121 | CA 1991-2047392 | 19910718 |
| JP 04234392 | A | 19920824 | JP 1991-178591 | 19910719 |
| US 5298063 | A | 19940329 | US 1992-945075 | 19920915 |
| PRIORITY APPLN. INFO.: | | | CH 1990-2418 | 19900720 |
| | | | US 1991-730418 | 19910716 |

AB The title compns. comprise a 1,4-diketopyrrolo-[3,4-c]-pyrrolo derivative combined with an auxiliary redox system of the ferrocyanide, ferrocene, or NH4+-Fe (II) sulfate type in combination with ≥1 conductive salt. Use of the compns. in electrochromic displays and methods for producing displays using the compns. are described. Selected derivs. are also claimed.

MSTR 4B



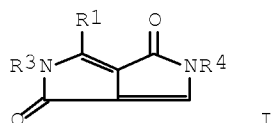
G1 = pyridyl (opt. substd.)
 G4 = alkyl <containing 1-12 C>
 (substd. by alkoxy carbonyl <containing 1-4 C>)
 Patent location: claim 1

L7 ANSWER 38 OF 40 MARPAT COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 113:68324 MARPAT Full-text

TITLE: Aminated diketodi(het)arylpyrrolopyrroles as photoconductors
 INVENTOR(S): Rochat, Alain Claude; Wallquist, Olof; Iqbal, Abul; Mizuguchi, Jin
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

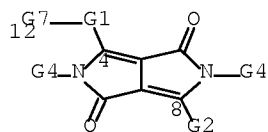
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| EP 353184 | A1 | 19900131 | EP 1989-810523 | 19890711 |
| EP 353184 | B1 | 19940615 | | |
| R: CH, DE, FR, GB, LI | | | | |
| KR 9711391 | B1 | 19970710 | KR 1989-10269 | 19890719 |
| JP 02088579 | A | 19900328 | JP 1989-186198 | 19890720 |
| JP 3076346 | B2 | 20000814 | | |
| US 5973146 | A | 19991026 | US 1993-128332 | 19930929 |
| JP 11344817 | A | 19991214 | JP 1999-128494 | 19990510 |
| JP 3076557 | B2 | 20000814 | | |
| PRIORITY APPLN. INFO.: | | | CH 1988-2769 | 19880720 |
| | | | US 1989-381212 | 19890717 |
| | | | JP 1989-186198 | 19890720 |
| | | | US 1993-47886 | 19930415 |

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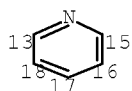


AB The title compds. I (R1 = substituted aminophenyl, substituted 5-amino-2-pyridyl, or substituted 6-amino-3-pyridyl; R2 = substituted Ph, substituted 2-pyridyl, or substituted 3-pyridyl; R3, R4 = H, C1-18 alkyl, carbamoyl, C2-13 alkylcarbamoyl, C3-25 dialkylcarbamoyl, and unsubstituted or substituted Ph or benzyl) are prepared for use as photoconductors in electrophotog. photoreceptors. Thus, 1,6-diketo-3,6-bis(4- bromophenyl)pyrrolo[3,4-c]pyrrole was reacted with Me2N to give 1,6-diketo-3,6-bis(4- dimethylaminophenyl)pyrrolo[3,4-c]pyrrole (II) (69.3% yield). A layer of II combined with a larger of p- diethylaminobenzaldehyde diphenylhydrazone on an Al support produced a photoreceptor with a photosensitivity (E1/2) of 8 mJ/cm2.

MSTR 1



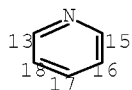
G1 = 15-4 18-12 / 18-4 15-12



G2 = 51 / 20

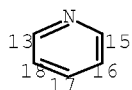


G3 = 15-8 18-21 / 18-8 15-21



G4 = CONH2

G12 = 15-8 16-52 / 15-8 17-52 / 15-8 18-52 /
 15-8 13-52 / 16-8 15-52 / 16-8 17-52 / 16-8 18-52 /
 16-8 13-52



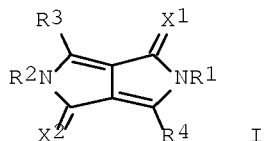
Patent location: claim 1

L7 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:1151141 CAPLUS Full-text
 DOCUMENT NUMBER: 147:460224
 TITLE: Field-effect transistors
 INVENTOR(S): Ikeda, Masaaki; Kuwahara, Hirokazu; Adachi, Chihaya
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 24pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

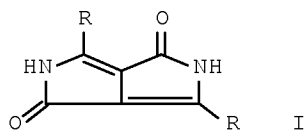
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2007266285 | A | 20071011 | JP 2006-89045 | 20060328 |
| PRIORITY APPLN. INFO.: | | | JP 2006-89045 | 20060328 |

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AB FETs use, as semiconductors, the compds. (I), where X1, X2 = O, S or Se; and R1-4 = H, or aliphatic hydrocarbon or aromatic groups which may be substituted.

L7 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:712239 CAPLUS Full-text
DOCUMENT NUMBER: 138:116787
TITLE: DPP dyes as ligands in transition-metal complexes
AUTHOR(S): Lorenz, Ingo-Peter; Limmert, Michael; Mayer, Peter;
Piotrowski, Holger; Langhals, Heinz; Poppe, Martin;
Polborn, Kurt
CORPORATE SOURCE: Department Chemie, Universitat Munchen, Munchen,
81377, Germany
SOURCE: Chemistry--A European Journal (2002), 8(17), 4047-4055
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:116787
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AB The DPP dyes (= diketopyrrolopyrrole) (I; R = Ph, 4-Me, 4-Cl, 4-NCC6H4, 4-pyridyl, 4-thienyl) (H2L) are deprotonated to give the corresponding dianions. These are treated with two moles of the transition-metal complexes [LnMX] = [(Ph3P)2MX] (M = Cu, Ag; X = Cl, NO3), [(Ph3P)AuCl], [(Et3P)AuCl],

[(tBuNC)AuCl], [(Ph₃P)₂PdCl₂], and [(Ph₃P)₂PtCl₂] to give the novel bismetalated DPP dyes [L₁nM(μ-L)ML₁n] (M = Cu, Ag, Au, PdCl, PtCl; L₁ = PPh₃, PEt₃, t-BuNC). In comparison with the starting materials, these compds. show better solubilities, high fluorescence quantum yields ($\Phi \geq 80\%$), and bathochromic absorptions. The compds. [PPh₃Cu(μ-L)CuPPh₃] (R = 4-ClC₆H₄) 4c, [Ph₃PAg(μ-L)AgPPh₃] (R = Ph) 5a, [Ph₃PAu(μ-L)AuPPh₃] (R = 4-MeC₆H₄) 6b, p-ClC₆H₄ 6c, 4-pyridyl 6e), [Et₃PAu(μ-L)AuPEt₃] (R = 4-ClC₆H₄) 7c, and [t-BuNCAu(μ-L)AuCNBu-t] (R = 4-ClC₆H₄) 8c were characterized by x-ray crystallog. The Cu and Ag atoms in 4c and 5a are trigonal planar and are surrounded by the P atoms of the phosphine ligands and the N atom of the DPP dianion of I. Both metals are somewhat forced out-of-plane, and the P₂M plane and the Ph planes of R₁ are twisted by >70° and <25°, resp., towards the chromophore plane. The Au atoms in 6-8 are linearly coordinated to one N and one P (6b, c, e, 7c) or one C atom (8c), resp. The Au atoms are only slightly pressed out-of-plane, and the P substituents are staggered so that there is enough space for the planarization of R₁ into the plane of the chromophore. Compound 8c shows intermol. d₁₀-d₁₀ interactions between Au₁ centers of different mols., and these interactions lead to infinite chains of parallel oriented mols. in a gauche conformation of neighbors (torsion angle = 150°) in the crystal.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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| ENTRY | SESSION |

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